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THE BIRDS OF SOMERSET HILLS



BY JOHN DRYDEN KUSER

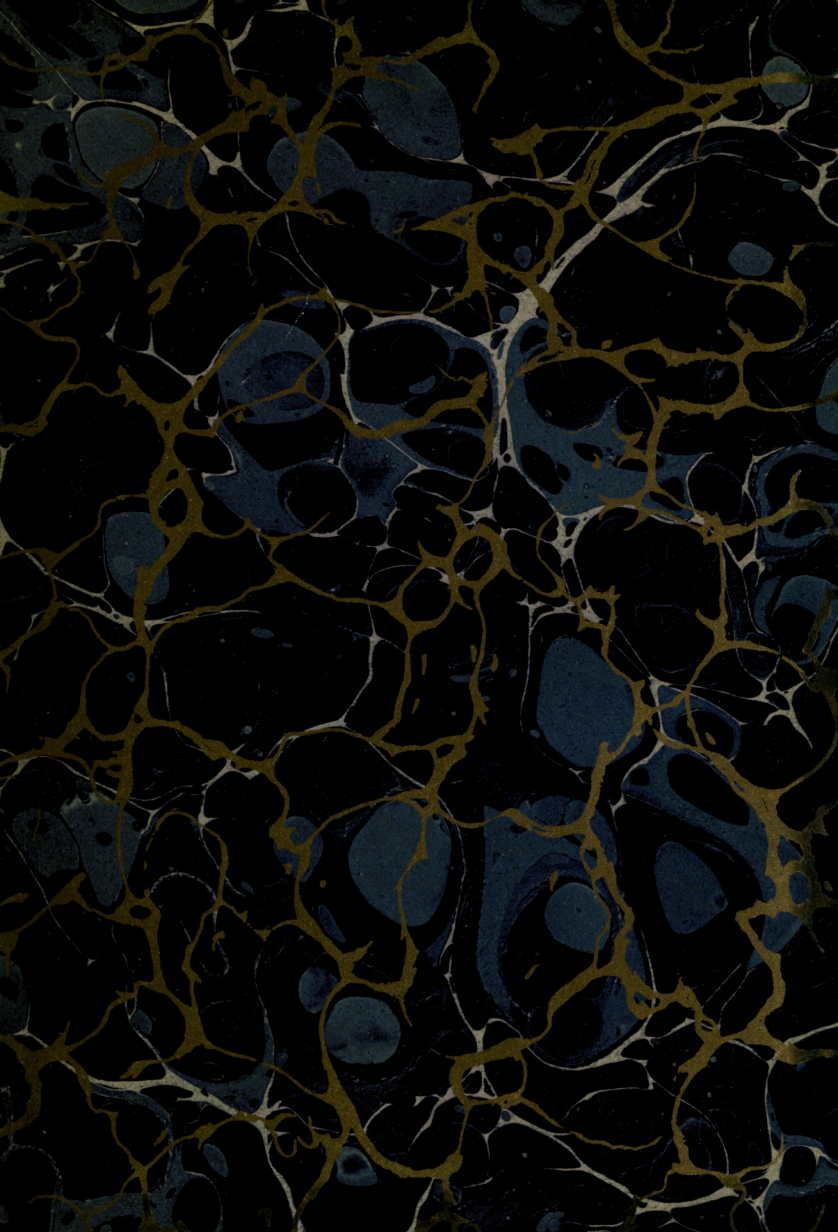


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Blue Jay



Scarlet Tanager

THE BIRDS OF SOMERSET HILLS

By JOHN DRYDEN KUSER



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TO THE MEMORY OF
MY

GRANDFATHER

Honorable John F. Dryden

INTRODUCTION

MY aim in writing this book has been to gather together the facts observed by me concerning bird-life in the Somerset Hills. I have used only the common names of the birds, except in the complete list in Chapter XIII, where the scientific names are also given.

Whatever I shall attain by the writing of this book, I owe to the help and encouragement of my Mother and Father.

I am greatly indebted to Mr. C. William Beebe for his valuable criticism and advice. I also wish especially to thank Miss Lilian G. Cook for her great interest and assistance in my bird-work. The colored plates are the work of Mr. Chester A. Reed.

JOHN DRYDEN KUSER.

BERNARDSVILLE, N. J.

APRIL, 1912.

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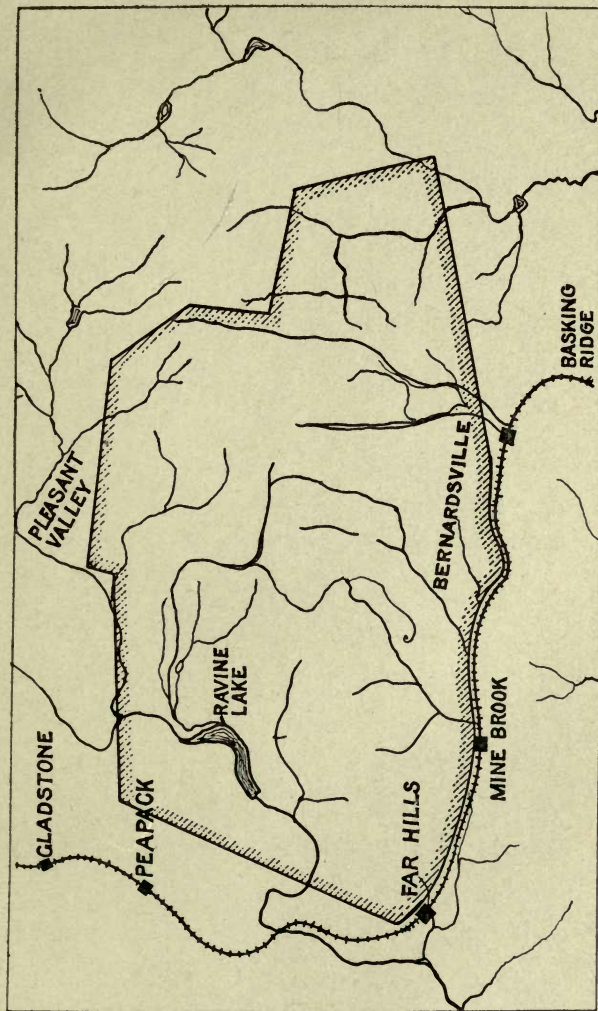
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SOMERSET HILLS, NORTHERN NEW JERSEY

BIRDS OF SOMERSET HILLS

CHAPTER I

DESCRIPTION OF THE SOMERSET HILLS

THE area covered by this book, as shown in the adjoining map, is in Somerset County in the north-central part of New Jersey. It is thirty-two miles, as the crow flies, in a westerly direction from New York City. Its altitude ranges from three hundred to eight hundred and fifty-seven feet. The country is hilly, with many deep valleys, intersected in two places by rivers—or more properly speaking, creeks—as they are not very large. One is in the eastern

part of the locality, and the other is situated near the western boundary. The first is the beginning of the Passaic River, and the second is the North Branch of the Raritan River, which widens into Ravine Lake about five miles from its source.

The ground of the Somerset Hills is very stony, but in a few places sand-pits are to be found.

Chestnuts, Oaks, Hickories and Beeches constitute the main forest trees, the first being the most plentiful. Evergreens are scarce, except where they have been planted. There are a few Birch groves, and among the smaller trees the Wild-Cherry, Sassafras, Spice-Bush, Dogwood and Locust probably predominate. Along the roads Maples are commonly to be found, and these, together with a few Elms, and scattered Tulips and Buttonwoods, constitute the

main flora of the meadows and fields. On the farms there are a great many fruit trees: Apples, Pears, Peaches and Cherries. The principal crops are Hay, Corn, Rye and Oats. Probably half of the land is under cultivation.

There are a few marshes, one at Ravine Lake, one near Far Hills, and two northwest of Bernardsville, one a mile, and the other two miles away. The wildest localities are along the Passaic and Raritan rivers, but there are more birds at the latter place.

The Somerset Hills are well adapted to birds—and bird-study—not only because of the variety of country included therein, but also from the fact that they are near enough to the Hudson and Delaware rivers, which are natural routes for bird migration, for stray birds to often deviate from those courses, and pass through the Somerset Hills.

On the other hand, they are close enough to the coast for wandering shore-birds to stop occasionally at the waterways.

CHAPTER II

BIRDS THAT LIVE AROUND HOUSES

STARLING, HOUSE WREN AND ENGLISH SPARROW

AT the present time I believe the Starling; English Sparrow and House Wren are the most typical house-birds. The Wren and Sparrow are better known, because twenty years ago the Starling was not found as a wild bird in this country. Time, however, will probably make the Starling more widely known, for it is spreading rapidly, and it can apparently adapt itself perfectly to this country. When one sees a black bird with a yellow bill, a little smaller than a Robin, he may be sure he has found a Starling. These birds have a

squeaky note, which may often be heard under the eaves of the house, where the Starlings will probably nest, if there be any in the neighborhood.

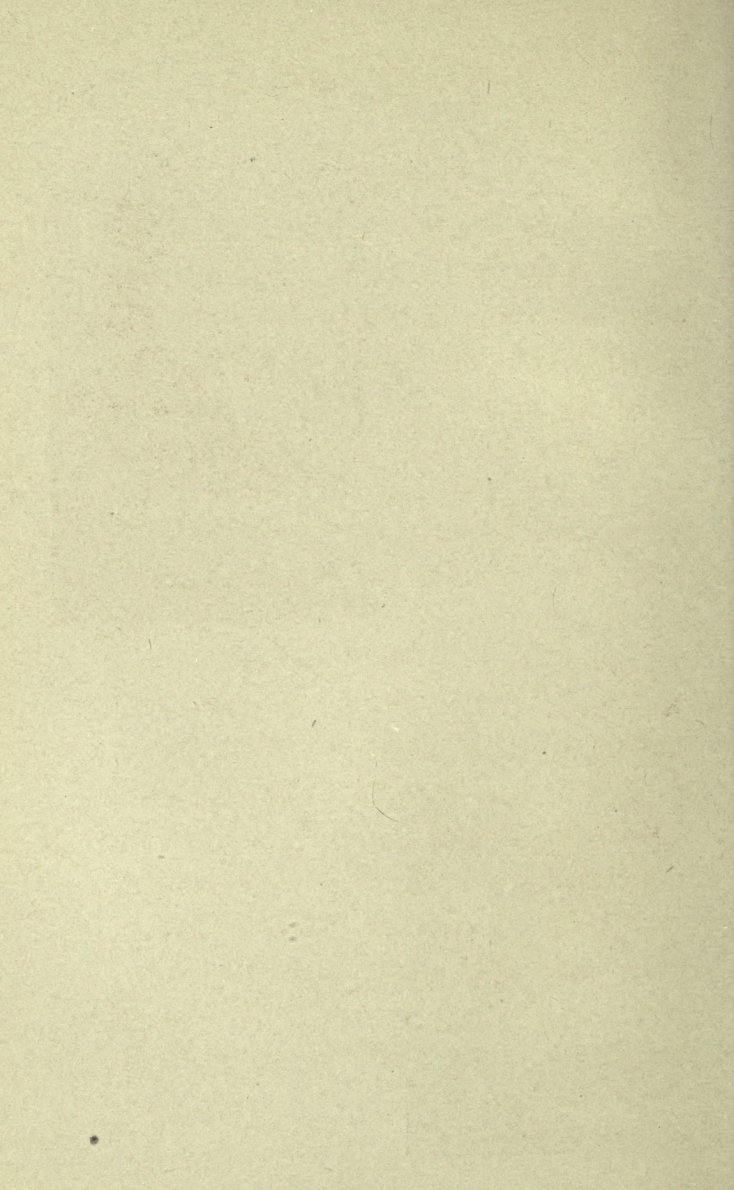
The English Sparrows are those noisy, often untidy birds that one sees in the city, and unfortunately often in the country too. This is the only objectionable sparrow out of a dozen or more species that live near us.

The House Wren (Plate 1, p. 17) is a summer resident, being replaced in the winter by the Winter Wren, which may be distinguished from the former by being of a smaller size, having the feathers crossed by more black bars and by its generally darker appearance. The House Wren often nests in scarecrows and tin cans, and if there be a pair of Wrens in your locality you may induce them to nest by putting up a nesting-box.

House Wren



Robin



ROBIN

To most people the Robin (Plate 1, p. 17) is too well known to need description, and almost every one has seen the Robin's nest, lined with mud, with an inner lining of soft material such as string, straw, etc., usually containing three to five sky-blue eggs, or later the yellow, unfledged young birds. I have found their nests almost completely composed of chicken feathers. In the North no one would think of shooting Robins, but they are frequently killed by the farmers of the Southern states, though in most states it is now unlawful.

Usually, Robins do not travel in very large flocks, but once, late in the fall of 1910, when I was at Ravine Lake at dusk, thousands of Robins passed overhead; hundreds more were lined along the banks of the river, bathing them-

selves; while numbers of others were roosting in the trees.

PHŒBE

This bird is probably the best known of its family, the Flycatchers. Its "phœbe" note may be heard from early in the spring to late in the fall. This bird may be easily recognized by its habit of jerking or sweeping its tail sideways. The nest of the Phœbe is frequently situated in some corner of a shed or under a bridge. Both male and female are alike in color, grayish-brown above, with the head darker; grayish below, shading into pale yellowish. .

SONG AND CHIPPING SPARROWS

These two common Sparrows nest in the early spring within a short distance of your house if you live in the country, and a few of the former remain during

the winter. The latter, however, go South and are replaced by a near relative, the Tree Sparrow. But this winter visitor does not, as a rule, come so close to houses as the Chipping Sparrow, usually frequenting the open fields. It may be distinguished from the Chipping Sparrow by having a brown, instead of a black line, through the eye, and by having a black spot in the center of the breast, which the Chipping Sparrow lacks.

AN EARLY MORNING RECORD

On the morning of July the third, 1911, I awakened unusually early. I decided to record the first time that each species of bird was heard singing. At 3:30 A.M. a Song Sparrow gave its call, which was the first sound of the day, in the bird world. Three minutes later, at 3:33, a Robin sang, and was

followed at 3:38 by a Chipping Sparrow. At 3:50 the *caw-caw* of the Crow was heard, and at 4:02 the beautiful song of the Wood Thrush came to my ears. A Mourning Dove cooed at 4:08, and a Catbird uttered its call at 4:25. The clucking of the Grackle was heard at 4:30, and I heard the Black-and-White Warbler's thin wiry note at 4:38, which was followed twelve minutes later (4:50) by the sad minor notes of the Field Sparrow. At 5:05 the Warbling Vireo sang its song, and the low, penetrating and strongly contrasting notes of the Pewee fell upon the air at 5:25. Finally at 5:29 A.M. I heard the nasal note of the Nuthatch.

While most of these are not typically "House Birds" yet they all feed or roost at times in the vicinity of our homes.

CHAPTER III

BIRDS THAT LIVE IN THE FIELDS

VESPER SPARROW

ONE always associates this Sparrow with wild fields. In looks it somewhat resembles a Song Sparrow, but it is paler, has no black breast mark and the outer tail-feathers are marked with white. Its song is two minor notes, followed by two loud ones and ending in a medley much the same as that of the Song Sparrow. The Meadowlark also has white in the outer feathers of the tail, but its larger size and yellow breast readily distinguish it.

FIELD SPARROW

The Field Sparrow is only a summer resident in New Jersey, but when it is

here it is very common and its notes can be heard for a long distance. It may be distinguished from the Chipping Sparrow by the bill being pink instead of blackish, and by a more reddish tinge on the body. It also lacks the chestnut cap of the Chipping Sparrow. Its nest is made of rootlets, grasses and weeds, in which it lays three to five whitish eggs, marked with rufous.

GRASSHOPPER SPARROW

If you hear a most unbirdlike note in the grass which you think is made by a grasshopper or cricket, search carefully, and you may find the smallest of the Sparrows. It has been named the Grasshopper Sparrow, and its voice well merits such a name, for it is nothing but a buzz, followed by an insect-like trill. Sometimes you may see the bird perched upon a fence. It is not

Meadowlark



Indigo Bunting

much larger than a Wren, and has a very short tail. Like most of its family, it is streaked with brown and black.

INDIGO BUNTING

If any two birds ever represented colleges I think they would be the Indigo Bunting (Plate 2, p. 23) and the Orange Weaver. The male of the former is clad in Yale Blue, inhabiting Eastern North America, while the male of the latter is an Orange bird with black wings and tail, a color reproduction of the Princeton flag. This Weaver, however, is an African species. The females are differently colored.

The Indigo Bunting is common in the fields of the Somerset Hills, in summer, but it winters far to the south of us. The male bird is described above, but the female is very different, being of a smooth, unstreaked olive-brown color.

In the birds previously mentioned I have said nothing in regard to the differences of male and female, as there has been very little appreciable distinction.

MEADOWLARK

I do not know of any sound that has greater carrying qualities than that of the Meadowlark (Plate 2, p. 23). It can be heard very distinctly when one is traveling through a country of fields in a train or motor.

The Meadowlark nests in grain fields on the ground, and makes a partly arched nest.

When singing, the Meadowlark usually takes a high perch; generally on the very top of a tree.

CHAPTER IV

BIRDS THAT HAUNT CULTIVATED LOCATIONS

MOURNING DOVE

ONE of the most restful sounds in nature is the cooing of the Dove. It is lovely to hear in the deep woods, for the Dove is one of those birds whose song misleads one as to the place from which it comes. The only other bird of this family that lived in the Eastern United States was the Passenger or Wild Pigeon. But they have probably been all exterminated, as for two years rewards amounting to over three thousand dollars have been offered for information as to the location of an undisturbed nest containing eggs or young. No nest has been found.

In Audubon's time Passenger Pigeons were to be found in millions, and the following is an extract from the account of that famous naturalist: "In the autumn of 1813, on the banks of the Ohio, I observed the Pigeons flying from north-east to south-west, and in greater numbers than I thought I had ever seen them before, and feeling an inclination to count the flocks that might pass within the reach of my eye in one hour, I dismounted, seated myself on an eminence, and began to mark with my pencil, making a dot for every flock that passed. In a short time, finding the task which I had undertaken impracticable, as the birds poured in in countless multitudes, I rose, and counting the dots then put down, found that one hundred and sixty-three had been made in twenty-one minutes. I traveled on, and still met more the farther

that I proceeded. The air was literally filled with Pigeons; the light of noon-day was obscured as by an eclipse, and the continued buzz of wings had a tendency to lull my senses to repose."

The Mourning Dove lays two pure white eggs in a poorly constructed nest of sticks not very high from the ground. In identifying Doves on the wing, one has to be careful that he does not mistake them for Sparrow Hawks, whose actions in the air are similar to those of the Dove.

YELLOW-BILLED CUCKOO

This is the commoner Cuckoo in the Somerset Hills, though I have several times seen the Black-billed Cuckoo, which may be distinguished by having the lower mandible black instead of yellow, and the white marks on the

under side of the tail one-fourth of an inch long instead of one-half of an inch long as in the Yellow-billed. Our American Cuckoos do not call their names as do their foreign relatives, but utter a note sounding like Kuk-kuk-kuk-kuk - ka - ka - kow - kow - kow becoming more rapid toward the end. The Black-bill's note is softer and the syllables are more closely connected.

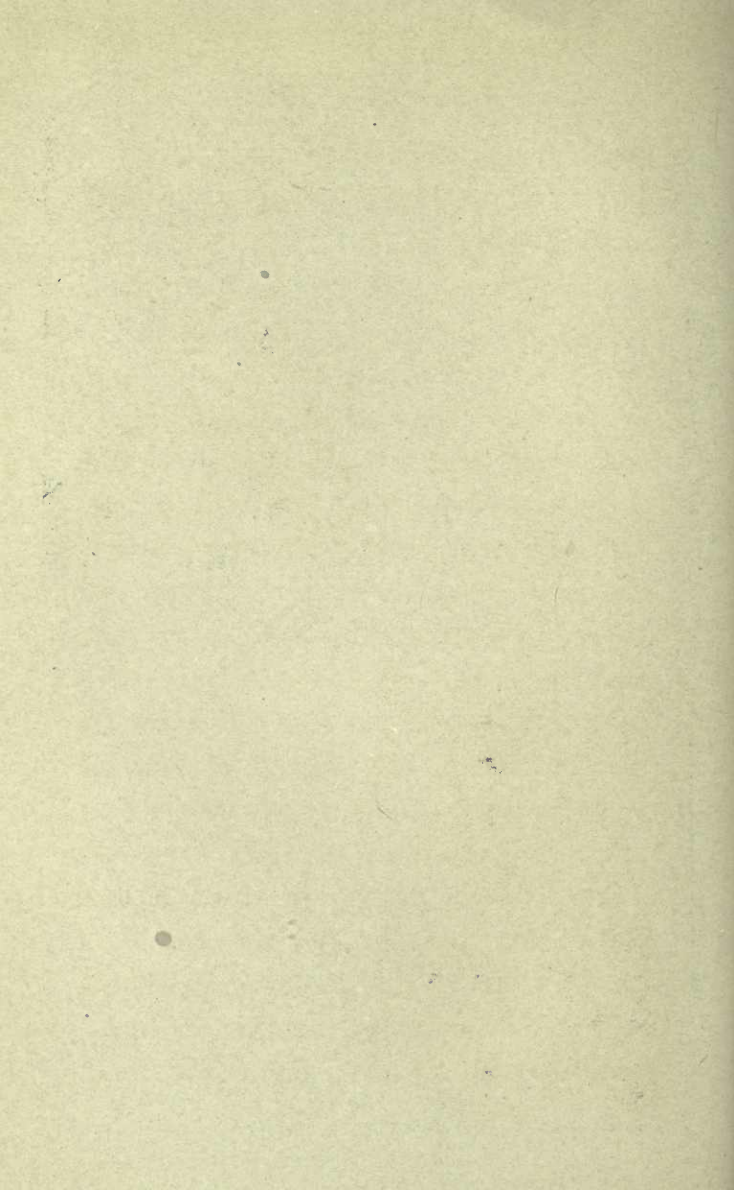
YELLOW-BELLIED SAPSUCKER

This bird (Plate 3, p. 29) is injurious to trees, as it sucks the sap and other juices from the tree by puncturing holes in the bark. Often one sees apple trees girdled with holes made by the Sapsucker. This bird is not a resident with us, stopping only for a short time every spring and fall, while traveling from its winter to its summer home and vice versa. It is easily distinguished from

Yellow-bellied Sapsucker



Northern Flicker



the Downy or Hairy Woodpecker by a broad white line running lengthwise along the wing.

NORTHERN FLICKER

The commonest of the Woodpeckers, with the possible exception of the Downy, is the Flicker (Plate 3, p. 29). He nests near our homes, and we may see his white rump, as he flies from tree to tree with undulating flight, or we may hear some one of his great variety of calls. As a rule he nests high in the trunk of a large tree, though at times he makes a nest lower down. I have seen a nest only about five feet from the ground.

The Flicker is the possessor of numerous local names, the most often used of which are: Golden-winged Woodpecker, High-hole, Yucker, Yellow-hammer, and Clape. The male has a

black line down the side of the head which the female lacks.

KINGBIRD

A good many birds have white outer tail-feathers, but few have a band of white, about a fourth of an inch in width, at the end of the tail, such as the Kingbird (Plate 4, p. 33). It is one of his distinguishing field marks. Both male and female are alike, plain gray-black above, a silky, unmarked white breast, and a red patch on the top of the head, which the birds usually conceal. In defending their nests against the attacks of Hawks, Crows and other large birds, Kingbirds show marvelous courage and strength, for it is a common sight to see one or more Kingbirds driving away a Crow.

CRESTED FLYCATCHER

The one strange thing about this Flycatcher is its nest. It is usually built in a hollow in some tree and nearly always has part of the skin of a snake in it. The note of this bird is a shrill, piercing whistle, and following it up we find a bird with brown back, gray breast, and yellow belly, with chestnut in the tail-feathers. It has the habit of raising the crest when excited.

LEAST FLYCATCHER

The Least Flycatcher is often called Chebec, from its call-note, which somewhat resembles a sneeze. This bird is the smallest of the Flycatchers that I have mentioned. It is by no means a shy bird, living near habitations, one of its favorite resorts being an orchard. It builds its nest in a sapling eight to twenty-five feet from the ground. The

eggs are white, three to five in number. This Flycatcher arrives about the first of May, and departs about the middle of September.

COWBIRD

When one sees a flock of black birds following a cow and picking the insects from her they are usually Cowbirds. These birds have the habit of the European Cuckoo, namely, of making no nest, but instead the female lays her eggs in the nests of smaller birds, such as Chipping Sparrows, Warblers, Vireos, Indigo Buntings, etc. They lay a white egg streaked with brown. The male bird is black with a dark brown head and the female is grayish brown. Although the Cowbirds are beneficial in respect to their food, they are very harmful as regards their nesting habit, for the young Cowbird, being larger

Kingbird



Cedar Waxwing

than the other nestlings, gets most of the food, and consequently the young of the rightful owners of the nest ultimately perish. It is a common sight to see a tiny bird, such as a Redstart, feeding a large, ugly, young Cowbird, almost three times the adult Redstart's size.

CARDINAL

This bird is commonly seen in cages and often seen wild in the South, but it is rather a rare bird in New Jersey, seldom coming as far north as New York City, but by carefully searching the thickets above Ravine Lake, one mile northeast of Peapack, I can find them at almost any season of the year, for I have seen them there in every month of the year except January, February, July and September. I have, at times, seen two males and two females together there.

CEDAR WAXWING

Of all the birds of Somerset Hills, Waxwings and Goldfinches nest the latest in the summer, not starting to build until July. The appearance of the Waxwing (Plate 4, p. 33) is always neat. His trim brown body, with a yellow band on the end of the tail, makes him easily distinguishable. The Cedar Waxwing gets the first part of his name from the fact of his feeding largely on cedar berries, though, when they are in season, he frequently eats cherries and strawberries. The latter part of his name comes from the fact that some individuals have red, waxlike tips on the secondary feathers of the wings.

WOOD PEWEE

I always associate this bird with hot sultry summer days when his long drawn out *Pee-ee-wee* seems especially

appropriate to that sort of weather. He builds a small neat nest, rather far out on the branch of some high tree. This bird resembles the Phœbe in size and coloring, but differs in having a gray instead of a black crown, nor does it have the Phœbe's habit of jerking its tail.

WARBLERS

The Redstart, Black and White, Yellow, Chestnut-sided, Black-throated Blue, Black-throated Green, Myrtle, and Black-poll Warblers are among the most frequently seen of their family in the locality of which I am writing. Most species of Warblers are rare, and among the kinds I have mentioned above only the first four are here in summer. The Yellow Warbler (Plate 7, p. 57) is yellow with chestnut streaks on the breast. The Chestnut-

sided has a white breast and the flanks are marked with chestnut; its back is streaked and it has a yellow crown. The Redstart (Plate 9, p. 73), which is the most common, is black with a white breast, and is brightly colored on the sides, wings and tail with salmon. The Black and White Warbler, or Creeper as he is sometimes miscalled, is a bird about the usual Warbler size, streaked with black and white. He acts Nuthatch fashion, climbing over the trunks of trees. The call of the Myrtle Warbler (Plate 9, p. 73) is one of the most readily distinguishable, being singularly unlike the notes of most of the other Warblers. The male is gray above and white beneath, with black on the breast. There are two white wing-bars. The sides, crown and rump are adorned by bright yellow spots about the size of a nickel. The female

is brown where the male is black, but otherwise is similar. The beautiful male Black-throated Blue Warbler (Plate 8, p. 65), with a blue back, white belly, black throat and sides, forms a strong contrast to his plainly colored mate, who is brown, with but one mark like the male. This is a large white spot on the wing.

The Black-throated Green Warbler (Plate 8, p. 65), whose patterns are similar to the Black-throated Blue, is colored with a green in place of a blue back and besides has bright yellow cheeks. The female of this species is green on her back, but has only a few faint streaks on her breast. Her yellow cheeks are not as bright as those of the male. One may confuse the male Black-poll Warbler with the Black and White, for they are alike in coloring, but not in actions. The former hops from place

to place in the branches of the trees, whereas the latter creeps over the trunks of the trees. One mark distinguishes them; the crown of the former is jet black and the crown of the latter is striped black and white. The female Black-poll is olive green.

VIREOS

The two most common Vireos of the Somerset Hills are the Red-eyed and Yellow-throated. The first has a gray back and silky white breast, with a white line underscored by a black one above the eye. The second or Yellow-throated Vireo is green on the back and has a bright yellow breast. This is the smaller species. The Vireos build a hanging nest attached in three or four places to a branch, and frequently containing birch bark in its composition.

KINGLETS

These birds (Plate 11, p. 91) are even more tiny than the smallest of the Warblers and have still thinner bills and are more active, scarcely ever staying in one place a moment. Both species have brightly colored crowns, one gold and the other red, according to their names, Golden-crowned and Ruby-crowned Kinglet. The former stays here all winter, but the latter, although he stays late, finally deserts us for a warmer clime. The song of the Ruby-crowned is wonderful in its variety, but the Golden-crown's note is a simple *Tee-tee-tee*.

ROSE-BREASTED GROSBEAK

The gaudy color of the male, together with his size, conspicuousness and song, makes him one of the most admired of birds (Plate 7, p. 57). As he flies, his flashing black and white contrast

strongly with his red breast, and when perched, all his colors stand out splendidly against the green foliage. How proudly he sits, singing his clear melody to his nearby mate, who is brooding on a set of blue eggs marked with brown. She is streaked with brown, and when on the nest is practically invisible. The male often incubates and notwithstanding his bright colors he is not conspicuous, as he sits low and all that shows is his black back.

SPARROWS, FINCHES, TOWHEE AND JUNCO

The White-throated Sparrow comes to us in September and stays until the next May. Its song is a clear whistle. With the exception of the Junco this is the most common bird of its family in the winter. It is streaked brown above and gray below, with a white throat colored on both sides by yellow

Baltimore Oriole



Orchard Oriole

lores. The female is the same, though paler.

We hear a rustling in the leaves. What is it? A person's footsteps, a rabbit, squirrel, or what?—no, it is none of these; it is merely a Fox Sparrow, though you think it impossible after hearing such a noise. He is reddish-brown above, and beneath gray, spotted and streaked with reddish-brown. This is the largest of the Sparrows, and his long tail makes him, at first sight, look like a Thrasher or Hermit Thrush. He does not remain with us, either winter or summer, but lets us see him for an all too brief period in the spring and fall.

When the foliage begins to turn from green to red, yellow and purple, when the honking of the migrating Geese flying southward attracts our attention, and when the ice forms on lakes, rivers and ponds we expect the Slate-colored

Junco; indeed he is often one of the earliest indications of winter, and stays with us through the most severe weather. He is gray on the back and breast, and white on the belly and the outer tail-feathers.

Thickets, brush-heaps and second-growth woodland are haunts of the Towhee. Its tail is like the Junco in regard to the outer feathers. The male has the back, throat and wings black, with white wing-bars. The belly is white, marked with rufous on the sides. The female is brown where the male is black, but otherwise is the same.

That beautiful little bird, the Goldfinch (Plate 6, p. 47), remains through the hot days of summer and through the icy days of winter, but during the latter time he is not the bright yellow and black bird that we are familiar with in summer, for he has changed his garb to

a plain olive green, like the costume of his mate. His note is a *Pe-ché-che-ché!* and his flight is swift and undulating.

The so-called Purple Finch (Plate 6, p. 47) is not purple at all, but a shade of pink. He is a permanent resident with us. The female is striped with brown, like the Sparrows, but may be told from them by her thicker bill and heavier streaks. The Purple Finches are seed-eaters, feeding to a great extent on the seeds of the ash, and on the berries of the cedar.

CATBIRD AND BROWN THRASHER

These birds (Plate 10, p. 83) are closely related to the small Wren. The Catbird is the nearest Northern representative of the well-known Mockingbird, for although the latter occasionally strays as far north as New England, it cannot be counted as a northern bird.

The Catbird and Thrasher are wonderful mimics like the Mockingbird. The Brown Thrasher is often called the Brown Thrush, but it is not a Thrush at all. Its colors are somewhat thrush-like, but its voice is not. It may also be easily told by having a bright rufous back, a very long tail and having streaks, not spots like the Thrush, on its breast.

BLUEBIRD

The appearance of the Bluebird (Plate 12, p. 97) is a well-known omen of the spring, but the Bluebird really stays with us all winter, though it is not often seen until early spring. Bluebirds generally nest in holes in trees, often those left by Woodpeckers, or they will sometimes nest in birdhouses. Their note is *Trú-u-leé*, which they frequently give while flying through the air. The Bluebird is colored sky-blue

above and earth-brown below, the latter shading to cream-color on the belly.

CHICKADEE

While walking along in mid-winter, with the cold fairly piercing one's clothing, and seeming to reach the very bone, is there anything more inspiring than to see a flock of Chickadees (Plate 12, p. 97) busily feeding; the little balls of feathers not seeming to feel the cold by which we are chilled. They apparently care not what the temperature is, for they sing their clear whistle, or give their *Chick-a-dee-dee-dee* note at any time of the year. In summer they are rarely seen, and one would think that they had left the place, but they have not. They have gone only to more secluded spots, in which to rear their young.

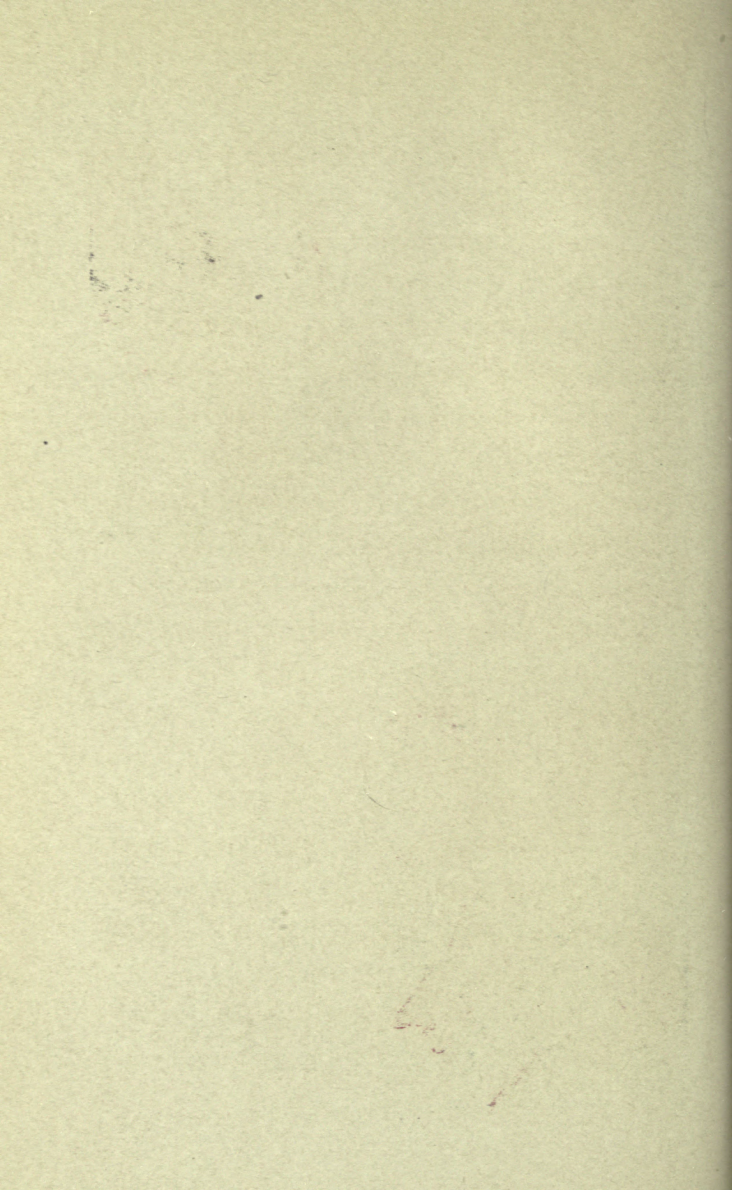
ORCHARD AND BALTIMORE ORIOLES

The Baltimore Oriole is the brighter of our two northern Orioles (Plate 5, p. 41). The male is orange, with black wings and tail, and his song shows his animated nature as well as his color, for it is clear and bright. How one misses it when the bird leaves, and he leaves early, for the South! The female is dull yellow. The male Orchard Oriole is chestnut where the Baltimore is orange. The female is greener than the Baltimore female. The young male for two years is like the female, but with a black throat. The Baltimore is the commoner in the Somerset Hills. It builds a hanging nest about five inches deep, and usually gray in color. The Orchard builds a partly hung nest, unlike that of the Baltimore. The Orchard's song is so much like that of the Rose-breasted Grosbeak that it is

Purple Finch



Goldfinch



sometimes difficult to distinguish between them.

BRONZED AND PURPLE GRACKLES

There are two kinds of Grackles, the Purple and Bronzed, but it is exceedingly difficult to tell them apart, and it is wise for beginners not to try. Grackles always associate with one another, one hardly ever seeing one alone. They migrate, spend the winter and nest in flocks. Their note is a guttural cluck. They occasionally make themselves objectionable by eating the eggs of small birds. At a distance the color of the Grackle is apparently black, but on nearer approach we find that they are marked by the most beautiful iridescent colors, green, blue, purple, and bronze.

CHAPTER V

BIRDS TO BE FOUND NEAR WATER OR MARSHES

ALL of the birds in this chapter have been seen and identified around the lower entrance of "Blairsden," near the so-called Smith Picnic Grounds at the upper end of Ravine Lake. It is the best place that I have ever found for seeing new and rare species of birds, and for studying the habits of birds. It is singularly well adapted to bird-study, having a lake, river, marsh, thicket, fields and woods in close proximity to one another. I have recorded no less than one hundred kinds of birds there. I believe that no matter at what time of the year one goes there he will be able

to find birds, for I have been at this place in every month except February, at most times of the day, varying from nine in the morning to half-past six at night. In most months I have gone at least six times for the last two years. I have been there in a heavy snowstorm, with the thermometer at 20 degrees, and at the hottest part of the hottest summer days, with the thermometer at 98 degrees. I have been there when the trees are opening their buds in spring, and during the autumn when the woods are colored by red, yellow and purple leaves. Notwithstanding the variety of time, season or weather, I have always found that there were more birds there than at any other place that I know of in the territory covered by this book.

I shall never forget one day in the fall of 1910. It was at sunset. Looking

westward, I beheld the sun, a ball of fire, passing from sight behind a distant hill, and turning my head to look across the lake, I saw a most wonderful sight. At this late hour, the sun cast a red hue over all that it illuminated. Part of the trees on the opposite shore were obscured from the sun's rays by other trees. The colors of the turning leaves which the sunshine touched were magnified by the red hue, and were set out against a background of leaves that were still green. A section of the water that was shadowed by the hill was black as night, and the water that received the rays of the fast disappearing sun reflected perfectly the wonderful coloring of the leaves. That part of the lake which was neither in sunshine nor shadow was green and blue. Not a ripple stirred the water. The wind was still, and there arose a chorus of the

voices of Ducks, Blackbirds, Kingfishers and other creatures that were preparing for sleep. Dozens of unfamiliar sounds came to my ears. They might have been made by rare birds, which I had never seen. Who knows? Finally darkness put an end to this sight, one which I shall always remember.

HERONS

The Great Blue Heron (Plate 14, p. 111) is the largest of our three Herons. His chief color is light blue, and he stands almost four feet high. His food, like that of the rest of his family, is composed mostly of frogs and fish. He wades through the water and seizes them with his long pointed beak. These Herons nest in trees, where, in small colonies, they build large rough platforms of sticks. Their call is a peculiar *quawk*.

The small Green Heron (Plate 14, p. 111) is not half the size of the Great Blue. This bird is green and blue with rufous markings on the shoulders. Generally they live in small marshes, but last summer there were six of them at Ravine Lake. Their call is very similar to that of the Great Blue, as is also that of the Black-crowned Night Heron, a bird considerably larger than the Green, but not equaling the size of the Great Blue Heron. The Black-crowned Night is silky white below, and gray and black above, with a black crown. During the nights of the spring and fall we often hear the *quawks* of migrating Night Herons, and as they fly low, we may possibly see them.

OTHER FISH EATERS

The food of the Osprey or Fish Hawk, and of the Kingfisher, consists wholly of

fish. However, these birds are protected by law, and may not be shot.

The Kingfishers live around small lakes, ponds and streams, watching for their prey; and as soon as they see it, diving into the water to capture it. To make their nest Kingfishers burrow into a bank for several feet, where they lay their eggs. Both male and female are the same, with the exception that the former has a dark-blue, and the latter a brown band across the breast.

The Osprey rarely comes far inland, though I know of one being seen sixty miles from the ocean, and every year there are some at Ravine Lake, eleven having been seen there in the spring of 1911. The nest of the Osprey is an enormous accumulation of branches, leaves and sticks, usually built in a tree.

MALLARD AND CANADA GOOSE

The Mallard (Plate 13, p. 105) is now common at Ravine Lake, because a few pairs were liberated there several years ago, and they have increased rapidly. The body of the male is green, black and brown, with a beautiful emerald green head, which is separated from the body by a white neck ring. The female and young are dark brown. These ducks stay almost all the year. The usual size of the Mallard is twenty-three inches, but a friend of mine, John B. Clark, of Bernardsville, New Jersey, has crossed some with the White Pekin Duck; and the young are the size of the latter. In captivity young Mallards sometimes dive under the water like Grebes, head foremost, but I have never seen the old birds do it. To a great many people, the V-shaped flocks of Geese flying over in migration are a

familiar sight, but strange to say, I have never chanced to see a flock of them. I have seen only one bird, in December, 1909, at Ravine Lake.

SPOTTED SANDPIPER

This Sandpiper (Plate 13, p. 105) is commonly called "Snipe," but the real Snipe is a migrant, and a larger, darker and rarer bird than the Spotted Sandpiper. These Sandpipers "teeter," singly, or in pairs, along the banks of our streams, but when any one approaches, they fly swiftly away, uttering a queer rattling note as they go. Their call sounds to me like the piping of young frogs in the spring. They were formerly more common at Ravine Lake than they are now. Occasionally I see other species of Sandpipers there during migration.

WATER-THRUSHES

The actions of these birds are similar to those of the Sandpiper, but the Water-Thrush moves its tail more and its body less, whereas it is vice versa with the Sandpiper. This is not a Thrush as its name would imply, but a Warbler. There are two kinds of these birds: the Louisiana Water-Thrush, which is a summer resident, and the Northern Water-Thrush, which is a migrant in New Jersey. During the spring of 1911, I found the nest of a Louisiana Water-Thrush at Ravine Lake, and took several photographs of it. The dates concerning it were as follows:

May 21—Nest found with 4 eggs.
Male and female near.

May 22—1 bird seen near nest.

May 29—1 bird on nest. 5 eggs.

May 30—1 bird on nest. Stayed

Rose-breasted Grosbeak



Yellow Warbler

until camera was placed within 15 inches.

One day between May 29 and June 4, 7 eggs were seen in nest and 1 broken egg on path near nest.

June 4—Several young hatched. One apparently just out of shell. Old birds near.

June 12—Female near nest. Several young heard in neighborhood. Nest empty, except 1 infertile egg.

ROUGH-WINGED SWALLOW

This bird often nests like a Kingfisher, in a hole in a bank. I have never seen the similar and usually more common Bank Swallow in the Somerset Hills, whereas the Rough-winged are at Ravine Lake in summer. Both of these Swallows are dark brown above, but the Rough-winged differs from the Bank in having a gray breast instead of a

white one. The white breast of the Bank Swallow is crossed by a brown band.

MARYLAND YELLOW-THROAT

Walking along the edges of a meadow we hear "*Wit-che-ty, wit-che-ty, wit-che-ty*" or "*Come-sée-me, come-sée-me, come-sée me,*" as it is translated by various authors. We may see the Yellow-throat (Plate 15, p. 117) as it appears out of the bushes for a moment. If it is a male it will be olive above and yellow below, with black cheeks and forehead. The female differs in having no black, and being of a paler hue.

RED-WINGED BLACKBIRD

The male of this species (Plate 15, p. 117) is a very striking bird, black, with patches of red and yellow at the base of his wings. After seeing him,

no one would suppose that the gray bird, streaked with brown, which may be seen near him, is his mate. These Blackbirds nest in a swamp, on some tussock, in a bush, or among the reeds. The notes of the Red-wing are a cluck, and an "*O-ka-lee.*" In the fall Red-wings desert the small swamps in which they nested, and gather in large flocks, like all Blackbirds, prior to leaving for the South.

CHAPTER VI

BIRDS THAT LIVE IN THE WOODS

THRUSHES

WHAT is so beautiful to hear on a summer's evening as the song of a Thrush? The melody of the Wood Thrush is peaceful, clear and bell-like. I remember one evening, when I was fishing at a lake, which is surrounded by woods, in the mountains of Pennsylvania. The sun had set, and the moon was rising. First one Wood Thrush would sing close by, then one far off would answer, after which a bird between these two would call; and with scarcely any sound to interrupt them, four or five sang their lovely songs.

The Wood Thrush is reddish brown above—redder and brighter towards the crown—and white below, heavily marked with arrow-shaped black marks. This Thrush usually builds its nest in a sapling. Its eggs are blue. Besides its song it has an alarm and other notes.

The song of the Veery (Plate 16, p. 123) is different from that of the Wood Thrush, and by some people is thought to excel it in beauty. This song is flute-like. Starting very low, and traveling higher and higher, it ends on a single high note. The Veery frequents low, wet woods, where it builds its nest on the ground, or very near to it, often on a tussock. The Veery is colored with an even cinnamon-brown above and has a cream-colored breast, with faint brownish spots.

The Hermit Thrush (Plate 16, p. 123) is credited with having the most

beautiful song of North American birds. I have always hoped to hear it, but thus far never have. The back of this Thrush is dark brown, brighter on the tail. Its breast is gray, spotted with black. It is only a migrant in the Somerset Hills.

NUTHATCHES

How can Nuthatches balance themselves when they walk head-foremost down the trunk of a tree? Woodpeckers climb only upward, and hold themselves by their tail, which has the tips of the feathers pointed. The Nuthatches hold themselves only by their feet. Their tail is square.

The Red-breasted and White-breasted Nuthatches have bluish gray backs and black crowns with white throats. The former may be distinguished from the latter by having a reddish-brown,

instead of a white belly, and a white line over the eye, underscored by a black one, the latter running through the eye. Nuthatches nest in holes in trees, often those that have been bored and deserted by Woodpeckers. The notes of both species are a nasal "*yank-yank*," although the Red-breast's call is thinner and more nasal.

WOODPECKERS AND THE CREEPER

The Downy (Plate 17, p. 127) and Hairy Woodpeckers are striped black and white on the head, back, wings and tail. The breast is white. The males have a patch of scarlet on their crown, but this the females lack. With the exception of the slight difference in the markings of the tail, there is no difference in the color of the Downy and Hairy Woodpeckers, but the much larger size of the latter readily dis-

tinguishes it. These two Woodpeckers have a rattle and a sharp click for calls. The Downy Woodpecker comes to our lawns and gardens, and if one places food outside when there is snow on the ground, these birds will frequently feed at one's very door. The Hairy, however, is shyer, and prefers the forest, though when food is scarce, he too, occasionally comes near the house.

The Brown Creeper is slightly larger than the Red-breasted Nuthatch, and is streaked with brown, the rump being of a reddish tint. It is a migrant here, and is a hard bird to observe, for when one comes near, it is very apt to climb around to the other side of the tree, so that it is lost to sight.

SCREECH OWL

The common owl which you hear during the night, and which is sometimes

Black-throated Blue Warbler



Black-throated Green Warbler

called a "Hoot Owl," is probably the Screech Owl (Plate 18, p. 131). It is not very large, has ear tufts, and there are two very different color phases: some of the birds being grayish, while others are bright reddish-brown. During the day these Owls roost in holes in trees, apple-trees very often being chosen. The Screech Owl is of economic value, for it destroys large numbers of grasshoppers and other insects and mice. Its call is a shrill trill, when heard close by, but at a distance it is only a low, murmuring and wavering trill.

SHARP-SHINNED HAWK

This Hawk (Plate 18, p. 131) is wood-loving, rarely sailing out into the open. It quietly flies through the woods, watching for its prey, which consists largely of small birds. It also eats mice and insects. It is not one of the large

Hawks, but is of medium size. It is one of the most destructive of its family. The so-called "Hen Hawks" of the genus *Buteo*, including the Red-shoulder and Red-tail, do more good than harm; but the Sharp-shinned, Cooper's, Duck and Goshawks destroy great numbers of our valuable and beautiful song birds. Therefore the four last mentioned are harmful, and should be destroyed. All other Hawks in this section of the country are not more destructive than beneficial.

CROW

"Scarce as a white Crow" is scarce indeed, for white Crows are few. The normal Crow is jet black, its feathers, legs, eyes and bill being all of the same color. It is sometimes difficult to tell a Crow's nest from that of a squirrel, though the former is generally com-

posed chiefly of sticks, while the material of the latter consists mainly of leaves. They are usually situated far up in high trees.

The flight of a Crow is slow and straight, and the bird usually flaps its wings, though I have seen a Crow sail for a long distance. Crows occasionally acquire the habit of eating the eggs out of one's chicken yard. They are permanent residents, but the same individuals that breed here, winter farther south, and the Crows that winter with us nest to the northward, probably in northern New York.

During the spring and fall we sometimes see the sky filled with Crows, usually very high, and wending their way southward. I saw as many as fifteen hundred and thirty-nine of them passing overhead at Washington, D. C., in January, 1910. They were flying in

a southerly direction, not as high as they often fly, and flying very slowly. It took about three-quarters of an hour for them to pass.

Crows gather in enormous roosts, and once while passing through Virginia in a train, I saw a roost of about a thousand. It was at twilight and they were settling for the night in the bushes.

Sometimes one may confuse a Crow with a Grackle, but they are quite different, and differ in the following ways: The length of the Crow is nearly twenty inches, whereas that of the Grackle is only twelve. The Crow has a short tail compared with its body, while that of the Grackle is long. The general appearance of the former is chunky and fat, but the latter is slim.

BLUE JAY

The Blue Jay (Frontispiece) is a permanent resident, and a saucy, imperti-

nent and noisy bird, yet universally liked, because of his gay colors and jovial and careless manners. Sometimes he robs the nests of other birds of their eggs. When Jays are near they are apt to make themselves heard, and apparently are always quarreling with one another. The calls of the Jay seem unlimited, for he makes all sorts of noises of his own and adds those which he has copied from other birds. In captivity it is possible to have Jays very tame; and we have a pair that like to eat nuts and fruit from our hands. During midsummer one seldom sees many Jays, for they seclude themselves in the woods, and perform their nesting duties, at that time rarely coming near civilization.

Blue Jays usually nest in small trees, often young pines.

OVENBIRD

This Warbler derives its name from the shape of its nest. The top is partially covered, with an opening on the side for entrance, making a striking resemblance to an oven. When in the woods one is startled by hearing the note of this bird, resembling the word "teacher" repeated five or six times, each time louder and louder. The Ovenbird has also a flight-song.

The markings of the Ovenbird are plain dark brown above, and white, streaked with black below. The only bright coloring on the bird is two stripes of orange-brown on the crown. Like most Warblers this bird moves south when the cold weather approaches, and when the insects disappear, for these form the chief food of Warblers.

SCARLET TANAGER

I think that of all birds the male of this one is the most beautiful (Frontispiece). What can you imagine more lovely in color than this scarlet bird, with black wings and tail, perched amongst green leaves? You rarely see him outside of a wood with green foliage. In this he makes his home, and to its coloring his mate is matched. He is green in winter like the female, except that he retains his black wings, whereas her wings are brown.

His song is somewhat like that of a Robin, only more grating. He also possesses a note sounding like "*chip-chirr*," also of a grating quality. The nest of the Tanager is a loose affair of sticks situated in a tree. The Scarlet Tanagers arrive late in spring, and depart early in the fall, wintering in Central and South America.

CHAPTER VII

BIRDS THAT LIVE IN THE AIR

HAWKS

THE Red-tailed, Red-shouldered and Marsh Hawks are of the kind that are more beneficial than destructive. Their food consists of mice, moles and other vermin, grasshoppers and other insects. The Marsh Hawk (Plate 20, p. 135) varies greatly in color, some birds which one sees being dark or light brown. These are usually females. Other individuals, which are the males, are gray. This bird nests on the ground in swampy lands. It inhabits fields and marshes and may be frequently seen sailing over them. The Marsh Hawk flies very low

Myrtle Warbler



Redstart

and rarely attains a height of over two hundred feet. In both sexes the upper tail-coverts are white.

The adult Red-tailed Hawk (Plate 20, p. 135) is reddish brown on the upper part of the tail. The bird which is most frequently confused with this is the Red-shouldered, but the adult males may be easily told apart. The latter has no reddish brown on its tail, but its shoulders are of that color.

The small Sparrow Hawk (Plate 21, p. 145) is brightly colored with patches of orange brown and black. These Hawks are about the size of a Shrike and their actions and food are similar. Both eat small birds, mice and insects. The Sparrow Hawk is beneficial, destroying vast numbers of vermin, insects and English Sparrows. They do occasionally eat song birds, but not often enough to class them with the hawks

which are more harmful than beneficial to agriculture.

TURKEY VULTURE OR BUZZARD

These birds are very desirable, owing to their diet. It consists of the carcasses of dead animals. In a very short time a flock of these scavengers will devour a horse or cow. Up to the present time Turkey Vultures have been seldom observed in Northern New Jersey, but they are now common in the Somerset Hills. My first record for them was in 1908. They were seen occasionally in that year. In 1909 they were more common, but in 1910 rather less so, in which year, as also in 1911, the majority of Buzzards were late in arriving, though both years brought early individual records.

The feathers of the Buzzard are black and the head is naked and of a red color.

In the southern part of the United States Vultures are very abundant.

THE CHIMNEY SWIFT

This bird is frequently miscalled Chimney Swallow, but is not of the Swallow family, being a member of the same one as the Nighthawk, Whip-poor-will and Hummingbird, and yet how different these birds are in appearance. The flight of the Swift is different from that of the Swallow, as are also its notes. Chimney Swifts are dark brown in color with the throat gray, and their wings are extremely long.

The Swifts nest in chimneys, fastening the twigs together and sticking them to the bricks with their saliva, which acts as a mucilage. Before there were houses in this country the Swifts nested and roosted in hollow trees.

John J. Audubon writes as follows

concerning these birds: "Immediately after my arrival at Louisville, I was informed that on my way back to town there was a tree remarkable on account of the immense numbers of Swallows that resorted to it. I found it to be a sycamore, hollow nearly to the roots. The sun was going down, and the evening was beautiful; thousands of Swallows were flying closely above me, and three or four at a time would pitch into the entrance of the tree. I did not pretend to count them, for their number was too great, and the birds rushed to the entrance so thick as to baffle the attempt. Next morning I rose early enough to reach the place long before the least appearance of daylight, and after waiting about twenty minutes, I suddenly thought that the tree was giving way and coming down upon me, and what was my astonish-

ment to see it standing firm as ever. The Swallows were now pouring out in a black, continued stream. I could compare the noise made within to nothing else than the sound of a large wheel revolving under a powerful stream. I estimated that the time they took in getting out was more than thirty minutes." After cutting a hole in the tree and examining its interior, the same author makes the following statement: "Let us now make a rough calculation of the number that clung to the tree. The space from the bottom of the tree to the entrance might be fully twenty-five feet, with a breadth of fifteen feet, supposing that the diameter of the tree was five feet at an average. There would thus be 375 feet square of surface. Each square foot, allowing a bird to cover a space of three inches by one and one-half, which

is more than enough, judging from the manner in which they were packed, would contain thirty-two birds. The number of Swallows, therefore, that roosted in this single tree was 9,000."

Where do the Swifts spend the winter months? This question has never been solved. From all over the United States Swifts gather around New Orleans in the fall, and suddenly every one is gone. Some say that they burrow in the mud; but no one really knows. They may winter in some cave in an unknown region.

RUBY-THROATED HUMMINGBIRD

This (Plate 21, p. 145) is the smallest bird in the Eastern United States. Its eggs are correspondingly small, for they are but half an inch in length and of a pinkish white color. A Hummingbird's nest is usually composed of plant down and lichens fastened together with

cobweb. Of over five hundred species of Hummingbirds, this is the only one that comes to Eastern North America, while but seventeen reach the Pacific slope.

The male Hummingbird has a green back and white breast with a ruby-colored throat. The female is similar but lacks the color on the throat.

When the Hummingbird flies from flower to flower with meteor-like flight which is so swift one cannot see the motion of the wings, it looks like a large butterfly or moth. The food of the Hummingbird consists of honey and insects. It flies to a flower, sticks its long bill into the depth of the blossom and extracts the honey, also taking insects which are injurious to the flower.

TREE, CLIFF AND BARN SWALLOW

The Swallows are entirely insect-eating birds and are adapted for that pur-

pose in every way. They have long wings, so that they can sail through the air for long periods without fatigue. Their feet are very tiny and weak and are rarely used by the birds for walking, as they prefer flight whenever possible. Unlike most perching birds, Swallows migrate by day.

The Tree Swallow (Plate 22, p. 151) is silky-white below and shining emerald-green above. It is termed the White-bellied Swallow by some authors. Tree Swallows are among the first to arrive from the South in the spring and the first to depart in the fall, though some linger late in the season. As early as the first of July they gather in flocks and at night roost in marshes. They raise two broods of young a year. The Tree Swallow may sometimes be told from the Cliff and Barn by the fact that this bird prefers to fly high in

the air, whereas the others stay lower. Tree Swallows nest in hollow trees.

Cliff and Barn Swallows (Plate 22, p. 151) are dark blue-black above and chestnut below. The former may be told from the latter by a brown instead of a blue rump and a square instead of a forked tail.

The Cliff Swallow is also called the Eave Swallow. The Cliff Swallow formerly nested in cliffs, from which it receives one of its names, and as it now builds its nest of mud under the eaves of barns, it is also called the Eave Swallow. I have seen over sixty nests of these birds under the eaves of one side of a barn, which was about forty feet long. Before there were any barns in this country, these Swallows nested altogether in cliffs.

The nest of the Barn Swallow is made of the same material as that of

the Cliff, with straws added, but is of a different shape. The nest of the Cliff Swallow is globular and hangs downward. The Barn Swallow's nest is usually placed on a rafter or in the corner of a barn and is cup-shaped. It is a common sight to see several of these Swallows sailing low over the fields or meadows, catching insects. Their twittering note can be distinguished from that of the other Swallows. Both males and females incubate, the female the greater part of the time. The period of incubation is about thirteen days. Once when I watched these birds as they were nesting, each bird would remain on the nest for about eight minutes.

Catbird



Brown Thrasher

CHAPTER VIII

A SCORE OF RARE BIRDS

IN this chapter I am including twenty birds which are the most frequently seen of those which I have not already mentioned. They are the following species: Solitary Sandpiper, Killdeer, Bald Eagle, Red-headed Woodpecker, Night-hawk, Rusty Blackbird, Redpoll, Pine Siskin, White-crowned Sparrow, Warbling and White-eyed Vireos, Blue-winged, Northern Parula, Magnolia, Pine, Yellow Palm and Canada Warblers, Yellow-breasted Chat, Olive-backed and Gray-cheeked Thrushes.

Several times I have seen the Solitary Sandpiper, which is similar to the Spotted but distinctly larger in size.

This Sandpiper, like the Spotted, frequents small streams, teetering up and down their banks in search of the worms and aquatic insects which constitute their food.

In the spring of 1909 a pair of Killdeers appeared in a small meadow about two miles from Bernardsville. They remained all summer, and though I never found their nest I think that they probably bred. One single bird of this species was observed on a sandbar at Ravine Lake in the fall of 1910. The Killdeer is gray and black above with an orange-brown rump. Its underparts are white, crossed on the breast by two blackish bands.

The Bald Eagle is one of the few Raptores which may be identified, even when soaring at a great height in the air. Its white head and tail contrast strongly with its brown body. The first time that

I saw this Eagle was in 1908. The next summer I saw it three times. In 1910 I had one report of it, but I have not heard of it being seen in 1911, so apparently the bird is becoming scarcer.

The Red-headed Woodpecker is a permanent resident throughout most of its range. In many places it is rather common, but in the Somerset Hills it is rare. I have but three records of its occurrence. I have frequently seen it near Somerville, Stirling and other adjoining places. This species of Woodpecker is an enemy of the telegraph and telephone companies, owing to the fact that it makes holes in their poles. This sometimes results in the pole being made so weak from constant borings that it eventually falls. However, the poles are not usually effectually damaged, and besides, the bird redeems itself by doing good in excavating insects from the bark of trees,

which, if they were allowed to remain, would kill the tree. The whole head and upper breast of this splendid bird are crimson; the upper part of the back, the wings and tail are black, while the lower back, the belly and a wide band across the wing are white. The young birds are gray and white, streaked with brown.

Many people think that the Whip-poor-will and Nighthawk are the same bird, but they are not, which one will readily see by carefully looking at them. The Nighthawk is gray, whereas the Whip-poor-will is brown. On the middle of the wing of the Nighthawk is a large patch of white, which mark is absent on the Whip-poor-will. The Whip-poor-will is strictly nocturnal, rarely coming out in the daylight. I have been fortunate enough to see them at dusk. Whip-poor-wills utter their

"*Wh-wh-whip-poor-will*" note at almost any hour of the night. When close by, one may hear a low chuckling note, which they prefix to their other call. The Nighthawk is more diurnal than the Whip-poor-will, frequently being seen in broad daylight. Their call is a nasal "*Peent*." Early in the fall Nighthawks gather in small flocks, and migrate southward. This is the time that I usually see them in the Somerset Hills. The Whip-poor-will is exceedingly rare in that locality, and it was my intention not to mention it in this book, but owing to the ease with which these birds are confused, I was obliged to mention the Whip-poor-will in connection with the Nighthawk.

About the size of the Red-wing, the male black, and the female the color of the female Cowbird, the Rusty Blackbird is a migrant in the Somerset Hills.

During the spring of 1910 a pair stayed for about two weeks at a small pond. There are several other records of its occurrence.

Some winters when food is scarce in the North, the northern birds are to be found commonly in New Jersey; and other winters almost none are seen. The winter of 1910 was one of the former kind, and Pine Siskins and Redpolls were both common in the Somerset Hills. Siskins were first seen in 1910 on October eleventh and from that time until December twenty-sixth, they were seen several times. On October seventeenth, a flock of seventy-five birds was counted, and on the same day a small flock was seen in another spot. The large flock was feeding on the seeds of the birch tree at the time. No. Siskins were seen from December twenty-sixth until March fifth, at which date ten or twelve

were recorded. A flock of several dozen Redpolls appeared on December seventeenth, 1910. There were both males and females in the flock. They were frequently seen in a grove of birch trees, the seeds of which they fed upon. The last date that the flock was recorded for the season was on February twelfth, 1911. The Siskin is streaked with brown, has a yellowish tinge and also has yellow on the under sides of the wings. The Redpoll is streaked like the Siskin, but has no yellow in the wings, and the male Redpoll has its throat, upper breast, rump and crown reddish. The female is without the red except on the crown.

The White-crowned Sparrow differs from the White-throated in having a wide white line on the crown, no white throat, and no yellow on the lores. The female is duller. This bird is rare, but

in the spring of 1910, one stayed for over two weeks near our house. It fed principally on dandelions, which had gone to seed. I heard the bird's song several times. Other than this I have seen the White-crowned Sparrow on only a few occasions.

The White-eyed Vireo is a marsh bird. He is a great mimic, imitating the calls of the Catbird so closely that it is nearly impossible to distinguish the sound from that of the real bird. He is green above, has a whitish breast, tinged on the sides with yellow, and his eyes are white. These Vireos are frequently to be found at Ravine Lake in the summer.

The Warbling Vireo is similar to the former, but has no whitish wing-bars like the White-eyed. One or two birds of this species stayed at Ravine Lake most of the summer of 1911. Their song is very different from that of the

Ruby-crowned Kinglet



Golden-crowned Kinglet

other Vireos, for instead of being a single call, it is a warbling medley.

The Blue-winged Warbler is like the White-eyed Vireo, in regard to the choice of its haunts. It has a preference for swamps. It is blue-gray above, and bright yellow below. Through the eye is a black line, which mark is its distinguishing characteristic. In 1910 I saw it frequently at Ravine Lake, but it did not appear in 1911. It is one of the few song birds that hybridize in a wild state. Sometimes it mates with the Golden-winged Warbler. The hybrids are divided into two classes. Those with white breast are termed the Brewster's Warbler, and those with yellow are called the Lawrence's Warbler. The former is more frequently seen. Of the latter not more than two dozen specimens have been recorded.

The colors of the Parula Warbler are

bright and varied. Its back is green, the rest of the upper parts bluish gray, and its breast is bright yellow. It is one of the smallest of the Warblers and may be distinguished by having a patch of yellowish green in the center of the back. It builds its nest of moss or lichens, in which it lays three to five eggs during the middle or latter part of May. The eggs are white, with the larger end spotted with a few reddish marks. Its song is very insignificant, being only a buzz and twitter. I occasionally see it in migration time, more often in the spring of the year.

After arriving about the first week in May, the Yellow-breasted Chat waits three weeks or more before building its nest, which is usually placed in a small bush or briar, not far from the ground. The exterior is composed of grasses and leaves and the lining of

the nest is of finer grasses. In this it deposits three to five glossy white eggs spotted with brown. Most Warblers are difficult to identify, but no one could mistake the Chat, which is the largest of its family. It is a summer resident in the Somerset Hills, and may be found in the marshes at Ravine Lake. One can frequently hear them there, though they rarely show themselves, nevertheless I have seen them on certain occasions. One afternoon I watched a Chat in the top of a tall tree for about half an hour. It remained motionless most of the time. One may tell the Chat by his actions and his long tail, which serve as distinguishing characteristics for this bird. He is nearly six and one-half inches long, is green above and yellow below with the exception of the belly and under tail coverts, which are white. Another way

of recognizing him is by his large bill and white line over the eye. The Chats leave early in the fall and by the first of September most of them have gone south. The locality which the Chat prefers is a marsh containing grasses, alders and other semi-aquatic plants and bushes. His notes seem unlimited, for not only does he possess extraordinary calls of his own, but he shows his great vocal ability in practising imitations of the notes of other birds. His commonest note is *Too! too! too!*

As its name implies, the Pine Warbler is a truly pine-loving bird, very seldom, other than during the times of migration, being seen far away from pine trees, which are its home. From these trees it utters its musical trill, which, though something like that of the Chipping Sparrow and Junco, differs from them in being sweeter and having

more variety as to scale, starting very low, gradually rising to a high pitch and suddenly ending by dropping very low again. In the pine trees it builds its nest at varying altitudes,—eight to eighty feet from the ground, usually on a horizontal limb. About two weeks are required for this Warbler to build its nest, which consists of strips of bark, weeds, etc. Its eggs are four or five, generally the former number being laid. As regards color, the eggs are whitish marked with brown and about three-quarters of an inch long, by half an inch wide. Pine Warblers are among the first of their family to arrive from the South in the spring, the first individuals being seen, as a rule, between the middle and twentieth of April. Apparently protective-coloration has entered to a great extent into the markings and colors of this bird, for not only

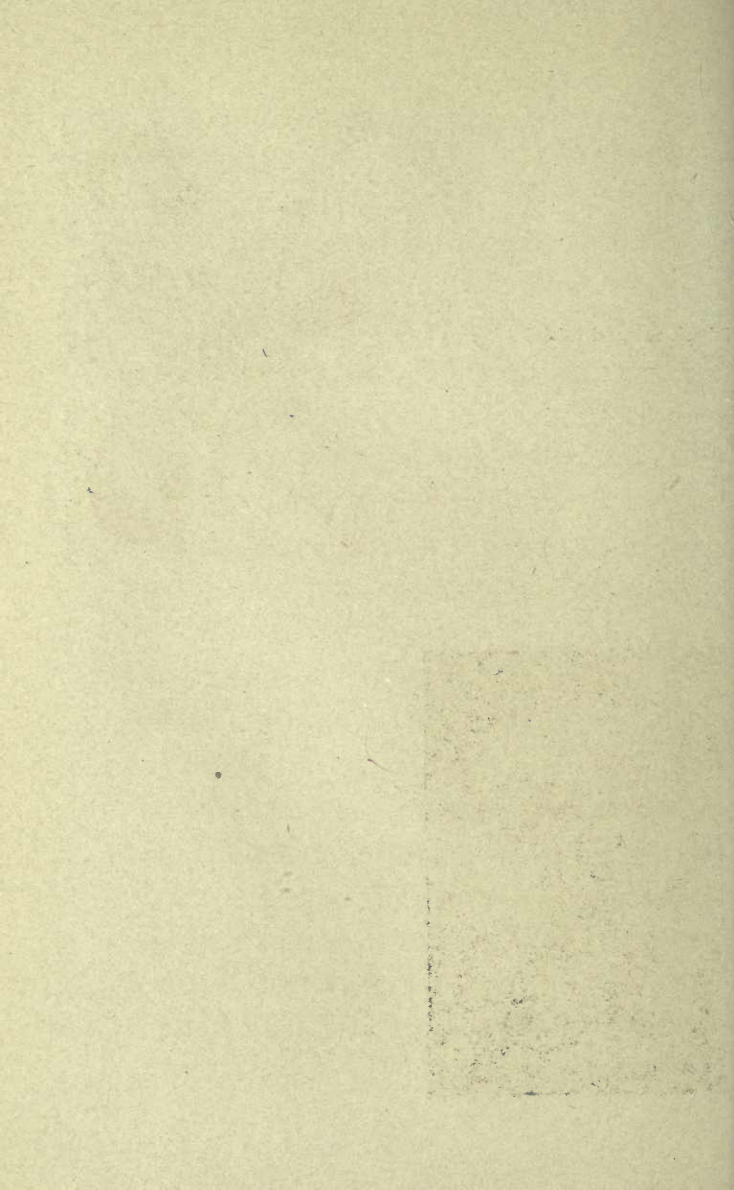
is it greenish-yellow (which is the color of the pine needles), but it is streaked with brownish lines, which in life make it even more closely resemble its environment. One realizes the above to be true, when, after hearing the Pine Warbler, one searches for the bird in the tops of high pine trees, and is unable to discern it among the foliage of the pine, to which it is so closely allied in color.

Together with the Pine and Myrtle Warblers, the Yellow Palm Warbler is one of the earliest arrivals in spring, usually coming about the middle of April. It is greenish-yellow above, with a chestnut cap, and below is yellow, streaked with brown. The outer tail feathers have white patches on their inner vanes. It may be known at a great distance by the continual motion of the tail, which is almost incessantly

Black-capped Chickadee



Bluebird



jerked up and down. This is a subspecies of the Palm Warbler, and is the Eastern form of that bird. O. W. Knight gives the following description of its nest: "composed of fine dry sedges and grasses, lined with a few feathers, and one or two horse-hairs. Its external diameter was three inches, and its internal diameter at the top two inches. Its depth outside was two and a half inches, and the depth inside one inch."

The Canada Warbler is a migrant in Somerset Hills, and is apparently much rarer in the spring than in the fall, though at all times it must be considered a rare bird in that locality. It is bluish-gray above, with no white in the wings or tail. The under parts are bright yellow, with a necklace across the breast of black spots, one underneath the other in downward lines. The female is very

similar, but universally paler and with fewer spots on the breast. The Canada Warblers usually arrive about the middle of May and the last birds depart about the first of October. Their nests are bulky and made of dead leaves and grasses lined with fine grass. From three to five eggs are laid, white, speckled and spotted with brownish marks. Usually about June first the bird begins its nesting. The song is loud, clear and lively and reminds one of the note of the Water-Thrush.

The Magnolia Warbler resembles the Myrtle in having the yellow rump and sides, but not only the sides of this bird are yellow but also the throat and breast, which are streaked with black lines. The one feature in which this bird differs from all other Warblers is in having the under part of the tail white with a black band at the end. This mark may

be very plainly distinguished when the bird is in the tops of the highest trees and often makes it identifiable when no other mark can be seen. This species of Warbler is a migrant in the Somerset Hills, usually being found on hillsides, among birch groves and in conifers, frequently together with Myrtle, Black-poll and Chestnut-sided Warblers. This bird's note is very beautiful and full, and when once learned is not easily forgotten. It builds its nest low, usually in an evergreen, where it deposits its whitish eggs, which are spotted with reddish brown and of which the bird generally lays four.

The Olive-backed, Gray-cheeked and Bicknell Thrushes are all very similar, with plain olive-brown backs and grayish breasts, the latter streaked with blackish. There are differences between them, but they are slight. The first may

be told from the two others by keenly observant bird students, not beginners. The last two can be told apart in life only by the most expert field ornithologists. The differences between the three kinds are as follows: The cheeks of the Olive-backed Thrush are buffy, while those of the other two are grayish. The Gray-cheeked and Bicknell Thrushes differ in the latter being slightly smaller and brighter. The song of the Olive-backed Thrush starts high and each note becomes lower and lower. The song of the Bicknell Thrush is very much like that of the Veery, but that of the Gray-cheeked is, I believe, unknown. The Olive-backed and Bicknell Thrushes nest in our Northern states, but the Gray-cheeked breeds much farther north. However, they are all only migrants in the Somerset Hills.

CHAPTER IX

THE INCREASE AND DECREASE OF BIRDS

ONE of the great questions in the bird-world is: are birds increasing or decreasing in numbers? There is no doubt that some are rapidly becoming extinct, whereas those birds which adapt themselves to civilization are becoming more numerous. In the following paragraphs I have taken up the question as to whether, from my observations, I think the different species of birds are becoming scarcer or more abundant in the Somerset Hills, in the northern central part of New Jersey.

The following are rapidly increasing: Turkey Vultures, Starlings (a few seen

in 1908, in 1909 they were more frequent and several large flocks were seen in 1910, also several nests being recorded in the latter year), English Sparrows, Robins, Bluebirds, Meadowlarks (one heard in mid-winter), Song and Chipping Sparrows and Chimney Swifts.

Those which show a steady increase, though not so rapid as the above mentioned, are: Pheasants (about 100 of these birds have been liberated annually for several years, but it is a question if no more were let out whether the birds would increase. Several nests have been recorded), Ospreys, Sparrow Hawks, Orioles, Goldfinches, Grosbeaks, Woodpeckers (except the Red-head, which is always rare), Blackbirds, Jays, Crows, Mallards (several pairs of which were liberated a few years ago and there is now a flock of a dozen or more); Great Blue, Black-crowned

Night, and Green Herons; Flycatchers, Towhees; Red-eyed, Yellow-throated and Warbling Vireos; Black and White, Chestnut-sided and Yellow Warblers; Ovenbirds, Maryland Yellow-throats, House Wrens (formerly rare, have become more common during the past two years), White-breasted Nuthatches.

The birds which seem to remain about the same in numbers, neither increasing nor decreasing, are: Mourning Doves; Red-tailed, Red-shouldered and Marsh Hawks (all of these Hawks are only seen occasionally); Screech Owls, Hummingbirds, Swamp Sparrows, Indigo Buntings, Rough-winged Swallows, Cedar Waxwings, Water-Thrushes, Catbirds, Chickadees, and lastly Wood Thrushes.

The slowly decreasing birds are as follows: Hawks of the Genus *Accipiter*, Cuckoos, Kingfishers; Vesper, Field and

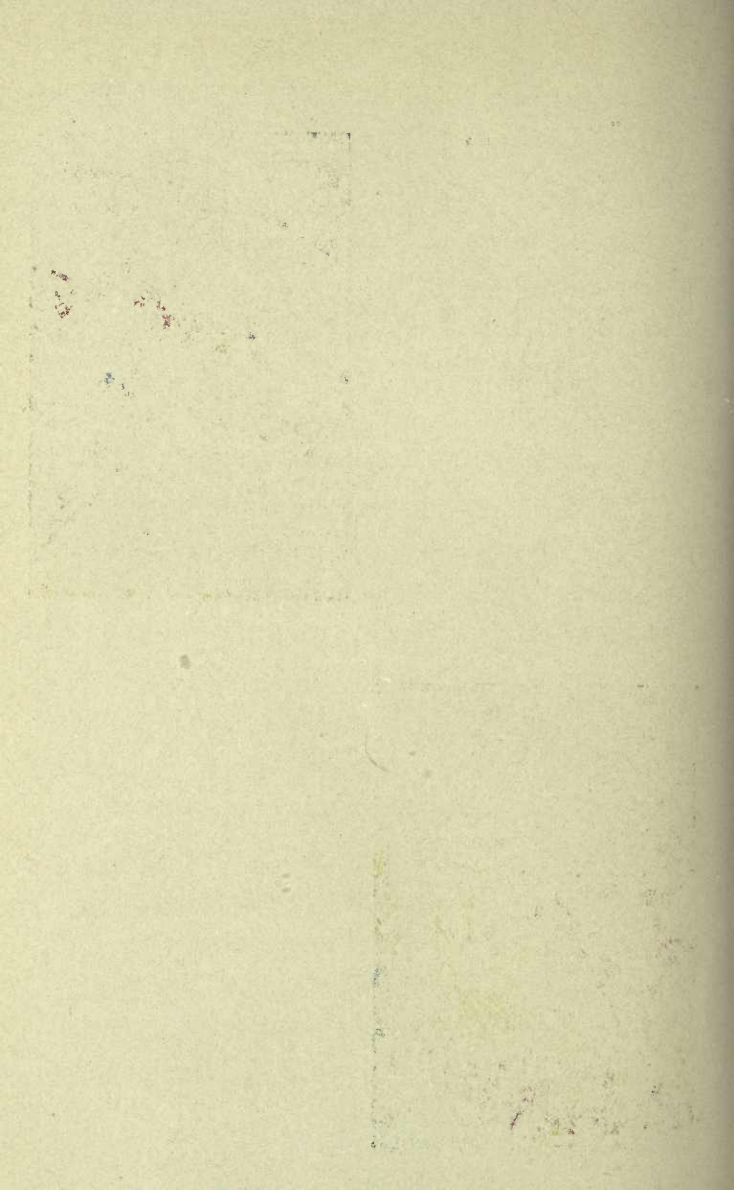
Grasshopper Sparrows; Cliff, Tree and Bank Swallows (none of the last named have been seen for two years, but formerly they were occasional); Brown Thrashers (only a few seen in 1910, and in 1911 they were even scarcer than in the previous year), and all the Thrushes not already mentioned.

The following birds are rapidly decreasing: Shore birds of the order *Limicolæ*, Ruffed Grouse and Bobwhites.

Mallard



Spotted Sandpiper



CHAPTER X

MY BEST DAY'S RECORD— 64 SPECIES

IT is always interesting to try to beat one's record as to the number of birds seen in a day. In the spring of 1909 I had a record of twenty-eight species of birds. Later I raised it to thirty-two, then to thirty-eight, and finally, in July, I saw fifty-four kinds of birds in one day. That was the largest record for the year. I beat this in 1910 by seeing fifty-seven birds. All these records, however, were beaten on May 14, 1911, by my seeing or hearing sixty-four species of birds. It was a beautiful warm day. In the early morning the

sky was clear, but as the day advanced the sky became slightly overcast. In the afternoon, from 2:30 to 5:30 P.M., I was at Ravine Lake. The list of birds is as follows:

1. Mallard
2. Green Heron
3. Solitary Sandpiper
4. Spotted Sandpiper
5. Common Pheasant
6. Mourning Dove
7. Turkey Vulture
8. Small Hawk, species unknown
9. Belted Kingfisher
10. Downy Woodpecker
11. Northern Flicker
12. Chimney Swift
13. Kingbird
14. Crested Flycatcher
15. Phoebe
16. Wood Pewee

17. Least Flycatcher
18. Crow
19. Starling
20. Cowbird
21. Red-winged Blackbird
22. Meadowlark
23. Orchard Oriole
24. Baltimore Oriole
25. Grackle, species unknown
26. English Sparrow
27. Goldfinch
28. Vesper Sparrow
29. Grasshopper Sparrow
30. White-crowned Sparrow
31. Chipping Sparrow
32. Field Sparrow
33. Song Sparrow
34. Lincoln's Sparrow
35. Towhee
36. Cardinal
37. Indigo Bunting
38. Scarlet Tanager

39. Cliff Swallow
40. Barn Swallow
41. Rough-winged Swallow
42. Cedar Waxwing
43. Red-eyed Vireo
44. Warbling Vireo
45. Yellow-throated Vireo
46. White-eyed Vireo
47. Black and White Warbler
48. Yellow Warbler
49. Black-throated Blue Warbler
50. Chestnut-sided Warbler
51. Ovenbird
52. Maryland Yellow-throat
53. Yellow-breasted Chat
54. Redstart
55. Catbird
56. Brown Thrasher
57. House Wren
58. White-breasted Nuthatch
59. Chickadee
60. Ruby-crowned Kinglet

61. Wood Thrush
62. Veery
63. Robin
64. Bluebird.

CHAPTER XI

CALENDAR OF BIRD MIGRATION
IN SOMERSET HILLS

PART I

EARLIEST SPRING RECORDS

a—Records of Miss Lilian G. Cook.
b—Records reported to J. D. Kuser.
All others, records of John Dryden
Kuser.

a Grackle	Mar. 1
Pine Siskin	" 5, 1911
a Fox Sparrow	" 7
Robin	" 11, 1911
Red-winged Blackbird .	" 14, 1911
a Hermit Thrush	" 18
Turkey Vulture	" 20, 1911

Great Blue Heron



Green Heron

THE BIRDS OF SOMERSET HILLS 111

i	Common Pheasant.....	Mar.22,1911
	Phœbe	" 22,1911
	Flicker	" 26,1911
	Field Sparrow	" 29,1911
	Cowbird	" 29,1911
	Vesper Sparrow	" 30,1910
	Mourning Dove	" 30,1910
	Chipping Sparrow	" 31,1910
b	Osprey	Apr.1,1911
	Belted Kingfisher	" 1,1911
	Yellow-bellied Sapsuck-	
	er	" 3,1910
	Ruby-crowned Kinglet .	" 5,1910
	Louisiana Water-	
	Thrush	" 6,1911
	Marsh Hawk	" 6,1911
a	Brown Creeper	" 7
a	Yellow Palm Warbler ..	" 7
	Green Heron	" 8,1911
a	Hooded Warbler	" 12
	Rusty Blackbird	" 12,1910
	Brown Thrasher	" 13,1910

a Canada Goose	Apr. 13
a Tree Swallow	" 14
a Myrtle Warbler	" 14
a Swamp Sparrow	" 16
Mallard	" 18, 1911
Towhee	" 20, 1910
Barn Swallow	" 21, 1912
a Purple Finch	" 21
a Savannah Sparrow	" 22
a Blue-headed Vireo	" 22
a Baltimore Oriole	" 25, 1911
Carolina Wren	" 27, 1910
b Scarlet Tanager	" 28, 1910
Redstart	" 29, 1911
a Blackburnian Warbler	" 29
Yellow Warbler	" 30, 1911
Northern Parula War-	
bler	" 30, 1911
Black and White War-	
bler	" 30, 1910-11
Least Flycatcher	" 30, 1911
Catbird	May 1, 1911

Chimney Swift	May 2, 1911
a Crested Flycatcher	" 2, 1911
Solitary Sandpiper	" 2, 1911
Spotted Sandpiper	" 2, 1911
Wood Thrush	" 2, 1911
Yellow-throated Vireo	" 3, 1910
Warbling Vireo	" 3, 1910
Orchard Oriole	" 3, 1910
Ovenbird	" 3, 1910
House Wren	" 3, 1910
a Magnolia Warbler	" 3
a Rose-breasted Grosbeak	" 4
Cliff Swallow	" 5, 1910
Maryland Yellow-throat	" 5, 1910
a Grasshopper Sparrow	" 5
a White-eyed Vireo	" 5
a Chestnut-sided Warbler	" 5
a Blue-winged Warbler	" 6
Black-throated Green Warbler	" 6, 1910
a Yellow-breasted Chat	" 7
Red-breasted Nuthatch	" 8, 1911

Kingbird	May 8, 1911	-
White-crowned Sparrow	" 8, 1911	
Cedar Waxwing	" 8, 1910	
Veery	" 8, 1911	
Northern Water-Thrush	" 9, 1910	
Black-crowned Night Heron	" 9, 1911	
Red-eyed Vireo	" 10, 1911	
Rough-winged Swallow	" 10, 1910	
Black-throated Blue Warbler	" 10, 1911	
a Wilson's Warbler	" 10	
a Black-poll Warbler	" 10	
a Canada Warbler	" 10	
a Bay-breasted Warbler ..	" 11	
a Golden-winged Warbler	" 11	
Ruby-throated Hum- mingbird	" 13, 1910	
Lincoln's Sparrow	" 14, 1911	
Indigo Bunting	" 14, 1911	
Pewee	" 14, 1911	
Yellow-legs	" 14, 1910	

a Olive-backed Thrush..	May 15, 1911
Cape May Warbler	" 16, 1911
a Killdeer	" 20
a Pied-billed Grebe	" 20
Great Blue Heron	" 21, 1911
a Bobolink	" 21
Bicknell's or Gray- cheeked Thrush	" 22, 1911
a Black-billed Cuckoo ...	" 29
Acadian Flycatcher	" 30

PART II

LATEST FALL RECORDS

a—Seen by Miss Lilian G. Cook.

All others, seen by John Dryden Kuser.

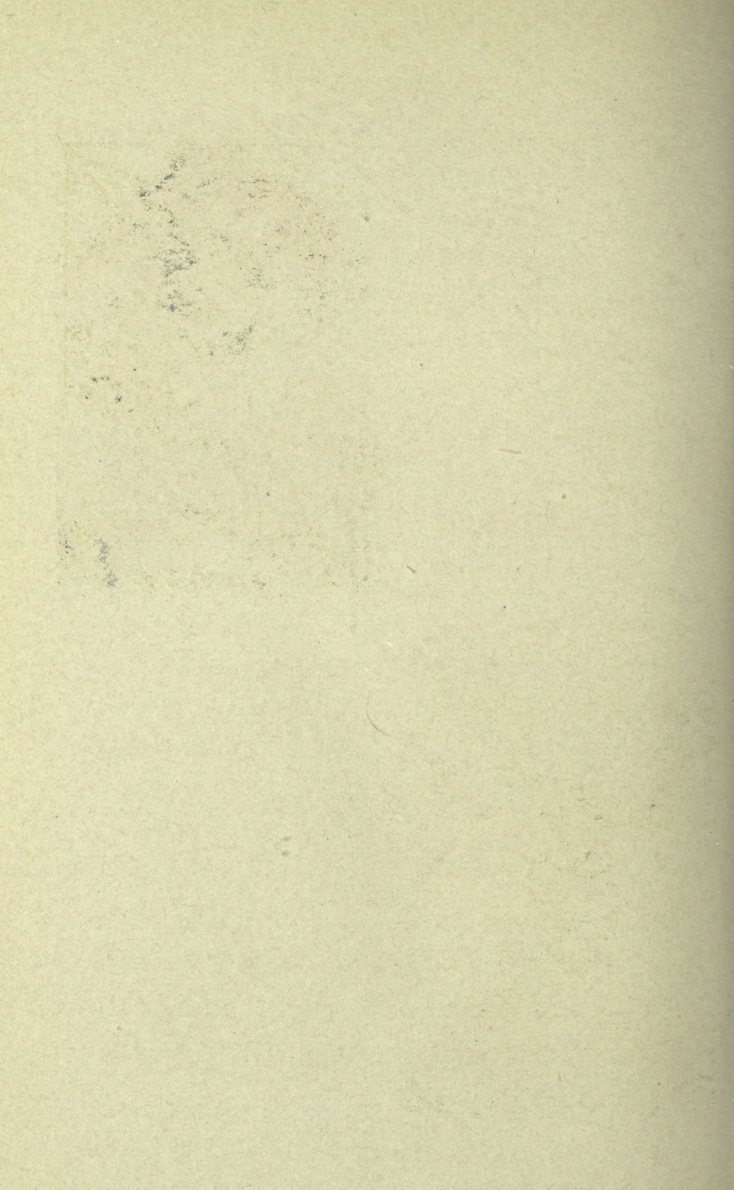
Pewee	Sept. 7, 1910
a Chestnut-sided Warbler ..	" 8, 1910
Yellow-throated Vireo ...	" 11, 1911
Philadelphia Vireo	" 12, 1910
Wood Thrush	" 12, 1910

Chimney Swift	Sept. 13, 1910
Black-crowned Night Her-	
on	" 13, 1910
Blackburnian Warbler ..	" 19, 1910
Nighthawk	" 20, 1910
Ovenbird	" 20, 1910
Rose-breasted Grosbeak ..	" 25, 1910
Brown Thrasher	" 26, 1910
Black and White Warbler	" 27, 1910
Black-throated Blue War-	
bler	" 27, 1910
Magnolia Warbler	" 27, 1910
Redstart	" 27, 1910
Maryland Yellow-throat	" 27, 1910
a Northern Parula Warbler	" 27, 1910
Canada Warbler	" 30, 1910
Tree Swallow	Oct. 1, 1910
Great Blue Heron	" 3, 1911
Phœbe	" 3, 1911
a Pine Warbler	" 3, 1911
Catbird	" 4, 1910
Cedar Waxwing	" 10, 1910

Red-winged Blackbird



Maryland Yellow-throat



Green Heron	Oct. 10, 1911
Common Pheasant	" 12, 1910
Red-eyed Vireo	" 14, 1910
Red-breasted Nuthatch ..	" 14, 1910
Northern Flicker	" 17, 1910
Black-poll Warbler	" 18, 1910
Osprey	" 18, 1910
Yellow-bellied Sapsucker	" 18, 1910
Grackle	" 18, 1910
Rusty Blackbird	" 18, 1910
Field Sparrow	" 24, 1910
Coot	" 25, 1910
a Chipping Sparrow	" 25, 1910
a Black-throated Green	
Warbler	" 25, 1910
a Hermit Thrush	" 25, 1910
Myrtle Warbler	" 31, 1910
Towhee	" 31, 1910
Horned Grebe	" 31, 1910
Killdeer	Nov. 1, 1910
Duck Hawk	" 1, 1910
Yellow Palm Warbler ..	" 1, 1910

Swamp Sparrow	Nov. 12, 1910
Cowbird	" 12, 1910
a Mourning Dove	" 18, 1910
Robin	" 18, 1910
Turkey Vulture	" 19, 1910
Fox Sparrow	" 19, 1910
White-throated Sparrow.	" 19, 1910
Ruby-crowned Kinglet	" 22, 1909
Meadowlark	" 24, 1910
Pine Siskin	" 26, 1910
Mallard (may have wintered)	Dec. 5, 1910
Baltimore Oriole (Central Park)	" 8, 1909
Bluebird	" 16, 1910
Belted Kingfisher	" 26, 1909

PART III

MONTHLY RECORDS

Horned Grebe; October, November.

Mallard; April-December.

Canada Goose; March, April, October-December.

Great Blue Heron; April-September.

Green Heron; April-October.

Black-crowned Night Heron; May-September.

Coot; April, May, September-November.

Yellow-legs; May, July-October.

Solitary Sandpiper; May, July-October.

Upland Plover; August, September.

Spotted Sandpiper; May-October.

Killdeer; May-October.

Mourning Dove; March-November.

Turkey Vulture; March-November.

Marsh Hawk; March-November.

Sharp-shinned Hawk; April-November.

Red-tailed Hawk; January-December.

Red-shouldered Hawk; January-December.

Broad-winged Hawk; May-September.

Bald Eagle; April-September.

Duck Hawk; October.

Sparrow Hawk; January-December.

Osprey; April-October.

Screech Owl; January-December.

Yellow-billed Cuckoo; May-October.

Black-billed Cuckoo; May-October.

Belted Kingfisher; April-December.

Hairy Woodpecker; January-December.

Downy Woodpecker; January-December.

Yellow-bellied Sapsucker; April, May, September, October.

Red-headed Woodpecker; April-September.

Northern Flicker; March-October.

Nighthawk; May-October.

Chimney Swift; April-October.

Ruby-throated Hummingbird; May-September.

Kingbird; May-September.

Crested Flycatcher; May-September.

Phœbe; March-October.

Wood Pewee; May-September.

Acadian Flycatcher; May, June, September.

Least Flycatcher; April-October.

Blue Jay; January-December.

Crow; January-December.

Starling; January-December.

Bobolink; May-October.

Cowbird; March-November.

Red-winged Blackbird; March-November.

Meadowlark; January, March-November.

Orchard Oriole; May-September.

Baltimore Oriole; May-September.

Rusty Blackbird; March-November.

Grackle; March-November.

Purple Finch; January-December.

Redpoll; December-March.

Goldfinch; February-November.

Pine Siskin; October-May.

Vesper Sparrow; March-November.

Grasshopper Sparrow; May-October.

White-crowned Sparrow; October-May.

White-throated Sparrow; September-May.

Tree Sparrow; October-March.

Chipping Sparrow; March-November.

Field Sparrow; March-November.

Junco; September-May.

Song Sparrow; January-December.

Lincoln's Sparrow; May.

Swamp Sparrow; April-November.

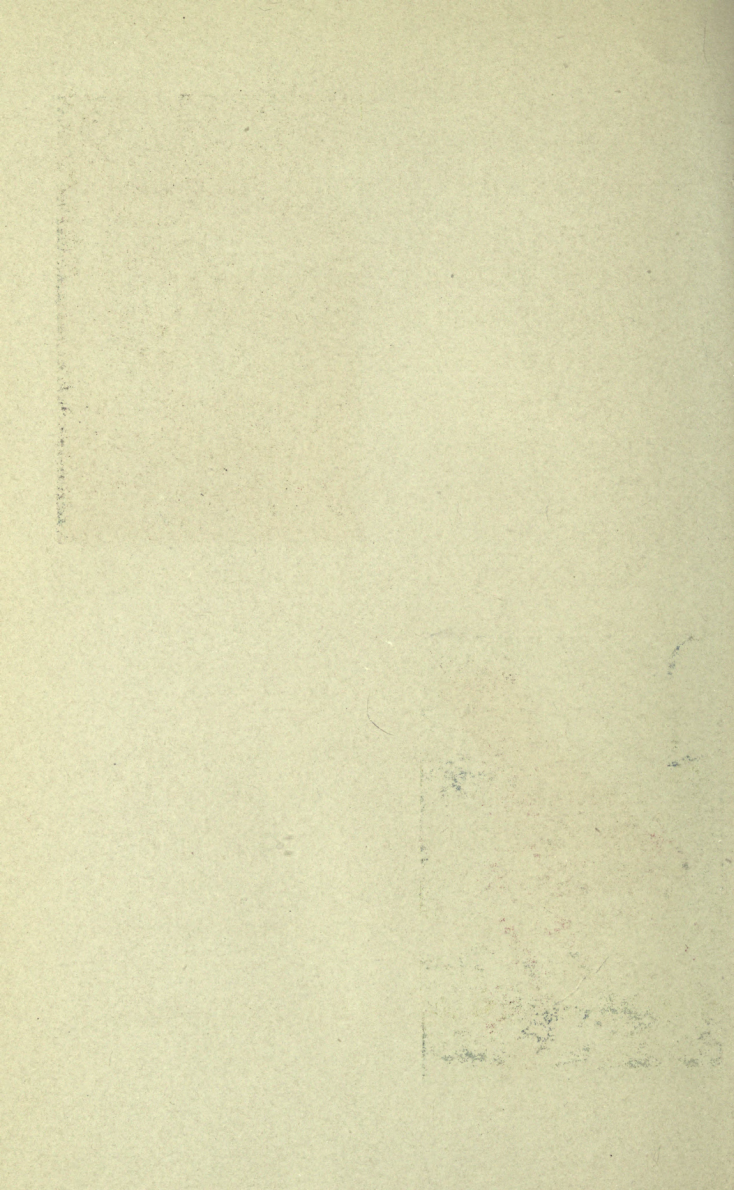
Fox Sparrow; March, April, October-December.

Towhee; April-October.

Veery



Hermit Thrush



Cardinal; March-December.

Rose-breasted Grosbeak; May-September.

Indigo Bunting; May-October.

Scarlet Tanager; May-October.

Purple Martin; April-September.

Cliff Swallow; April-October.

Barn Swallow; April-October.

Tree Swallow; April, May, July-October.

Rough-winged Swallow; April-September.

Cedar Waxwing; January - December.

Northern Shrike; November-March.

Red-eyed Vireo; May-October.

Philadelphia Vireo; September.

Warbling Vireo; May-September.

Yellow-throated Vireo; May-September.

Blue-headed Vireo; April, May, September, October.

White-eyed Vireo; May-October.

Black and White Warbler; April-October.

Blue-winged Warbler; May-September.

Nashville Warbler; May, August-October.

Northern Parula Warbler; May, August-October.

Cape May Warbler; May, August-October.

Yellow Warbler; May-September.

Black-throated Blue Warbler; May, August-October.

Myrtle Warbler; April, May, September, October.

Magnolia Warbler; May, August-October.

Chestnut-sided Warbler; May-September.

Bay-breasted Warbler; May, August, September.

Black-poll Warbler; May, June, September, October.

Blackburnian Warbler; May, September.

Black-throated Green Warbler; April, May, August-October.

Pine Warbler; April, May, August-October.

Yellow Palm Warbler; April, May, September, October.

Ovenbird; April-October.

Water-Thrush; May, August-October.

Louisiana Water-Thrush; April-September.

Maryland Yellow-throat; May-October.

Yellow-breasted Chat; May-September.

Hooded Warbler; May, August, September.

Wilson's Warbler; May, August, September.

Canada Warbler; May, June, August, September.

Redstart; May-October.

Catbird; April-October.

Brown Thrasher; April-October.

Carolina Wren; April-November.

House Wren; April-October.

Winter Wren; September-April.

Brown Creeper; September-April.

White-breasted Nuthatch; January-December.

Red-breasted Nuthatch; April, May, August-November.

Chickadee; January-December.

Golden-crowned Kinglet; September-April.

Ruby-crowned Kinglet; September-November, April, May.

Wood Thrush; April-October.

Veery; May-September.

Gray-cheeked or Bicknell's Thrush; May, June, September, October.

White-breasted Nuthatch



Downy Woodpecker

Olive-backed Thrush; May, June, September, October.

Hermit Thrush; April, May, September, October.

Robin; February-December.

Bluebird; January-December.

CHAPTER XII

TERMS USED TO DENOTE THE ABUNDANCE OR RARITY OF BIRDS

WHEN reading lists of birds with indications of their abundance or rarity, it is often very difficult to tell just how comparatively common or how rare each bird is, for it is seldom that any two people use the same scale, preferring to write each term as it is needed regardless of the preceding and succeeding ones, and consequently, without realizing it, they have a long, illogical list of terms. Those most frequently adopted are given below. I have limited myself to eight, which are: abundant, common, frequent, uncommon, occasional, rare,

scarce and irregular. Together with other terms which are often used I have given my reasons for not using them. Most of the data has been given me by Mr. C. William Beebe, who believes in using only the above eight terms:

ABUNDANT.

Very Common is the same as *Abundant*, for *Abundant* means *More Common* than *Common*.

COMMON.

Plentiful means the same as *Abundant* or *Common*.

Usually Common or *Usually Rare* are the same as *Common* or *Rare*, for we are writing about what the bird usually is, so *Usually* may be omitted.

Quite Common. The real meaning of *Quite* is *completely* or *wholly*. It is wrongly used to indicate *to a considerable extent*. Thus *Quite*

Common, correctly used, means no more than *Completely Common* or, simply, *Common*.

Not Uncommon is equal to *Common*.

Tolerably Common is usually used to mean *Fairly Common*, but tolerably is a very meaningless word in this case, as the word means *that which can be endured*. If, however, one wishes to use it as meaning *Fairly Common*, he can just as well use the latter word, or, instead of these, *Frequent*.

FREQUENT.

Often Seen is the same as *Frequent*.

Usually Tolerably Common is the same as *Tolerably Common*, which is the same as *Frequent*.

Fairly Plentiful is the same as *Fairly Common*.

Fairly Common is the same as *Frequent*.

Screech Owl



Sharp-shinned Hawk

UNCOMMON.

Infrequent is the same as *Uncommon*
or *Occasional*.

Not Common is *Uncommon*.

OCCASIONAL.

Sometimes Seen is *Occasional*.

Accidental is *Occasional* or *Rare*.

RARE.

Very Rare is using an unnecessary adverb, for *Rare* is *Very Rare*, and to use the latter makes a list only more confusing and difficult to understand.

SCARCE.

Scarce does not mean the same as *Rare*, but indicates that the bird mentioned was at some previous time *Common*, but that it has since decreased in numbers, until it is now *Rare*.

Very Scarce means *Scarce*, *Very* is unnecessary.

IRREGULAR.

Irregular indicates that at times the bird may be *Common*, and at other times *Rare*. Often this has to be used in connection with one of the other seven terms. In such a case it is often necessary to add *Usually*, as: Crossbill, Irregular, Usually Rare.

Of course it is not intended that these terms should always be used by themselves. One may use them when necessary in conjunction with other words as *Common Migrant*, *Scarce Resident*, etc.

CHAPTER XIII

COMPLETE LIST OF BIRDS OBSERVED IN THE SOMERSET HILLS

AS I explained in the preceding chapter, owing to the widespread confusion resulting from the loose way in which terms of relative abundance and rarity are used by ornithologists and others, I have confined myself to the following eight terms, which may be taken as a standard to express a gradual decrease from abundance to rarity:

Abundant.

Common.

Frequent.

Uncommon.

Occasional.

Rare.

Scarce.

Irregular.

1. Horned Grebe (*Colymbus auritus*), rare, one female seen in fall 1910.
2. Mallard (*Anas platyrhynchos*), rare, flock of ten or more at Lake. A few pairs liberated several years ago. Breed annually.
3. Canada Goose (*Branta canadensis canadensis*), rare, one seen December, 1909, migrant.
4. Great Blue Heron (*Ardea herodias herodias*), rare, one pair every summer for eight years at Ravine Lake; young birds seen.
5. Green Heron (*Butorides virescens virescens*), occasional in marshes. Six at Ravine Lake, summers of 1910 and '11.
6. Black-crowned Night Heron (*Nycticorax nycticorax nævius*), rare.

Red-tailed Hawk



Marsh Hawk



7. Coot (*Fulica americana*), rare, one seen fall 1910.
8. Yellow-legs (*Totanus flavipes*), rare, one seen spring 1910, migrant.
9. Solitary Sandpiper (*Helodromas solitarius solitarius*), rare, migrant.
10. Upland Plover (*Bartramia longicauda*), rare, flock seen fall 1909.
11. Spotted Sandpiper (*Actitis macularia*), occasional, summer resident.
12. Killdeer (*Oxyechus vociferus*), rare, pair summered in small meadow near Bernardsville in 1909.
13. Mourning Dove (*Zenaidura macroura carolinensis*), common, nest in 1910, summer resident.
14. Turkey Vulture (*Cathartes aura septentrionalis*), common, sum-

mer resident, twenty-one seen in flock summer of 1910.

15. Marsh Hawk (*Circus hudsonius*), uncommon.
16. Sharp-shinned Hawk (*Accipiter velox*), uncommon.
17. Red-tailed Hawk (*Buteo borealis borealis*), uncommon.
18. Red-shouldered Hawk (*Buteo lineatus lineatus*), occasional.
19. Broad-winged Hawk (*Buteo platypterus*), rare. One young bird captured by Kingsley Kunhardt in spring of 1910.
20. Bald Eagle (*Haliaëtus leucocephalus leucocephalus*), scarce.
21. Duck Hawk (*Falco peregrinus anatum*), rare, seen once, fall 1910.
22. Sparrow Hawk (*Falco sparverius sparverius*), common, permanent resident.
23. Osprey (*Pandion haliaëtus caro-*

linensis), occasional, eleven seen in spring of 1911, summer resident.

24. Screech Owl (*Otus asio asio*), frequent, permanent resident.
25. Yellow-billed Cuckoo (*Coccyzus americanus americanus*), uncommon, summer resident.
26. Black-billed Cuckoo (*Coccyzus erythrophthalmus*), rare, summer resident.
27. Belted Kingfisher (*Ceryle alcyon*), frequent, summer resident.
28. Hairy Woodpecker (*Dryobates villosus villosus*), uncommon, permanent resident.
29. Downy Woodpecker (*Dryobates pubescens medianus*), abundant, permanent resident.
30. Yellow-bellied Sapsucker (*Sphyrapicus varius varius*), occasional, migrant.

31. Red-headed Woodpecker (*Melanerpes erythrocephalus*), rare.
32. Northern Flicker (*Colaptes auratus luteus*), abundant, summer resident.
33. Nighthawk (*Chordeiles virginianus virginianus*), occasional, summer resident.
34. Chimney Swift (*Chætura pelagica*), abundant, summer resident.
35. Ruby-throated Hummingbird (*Archilochus colubris*), common, summer resident.
36. Kingbird. (*Tyrannus tyrannus*), common, summer resident.
37. Crested Flycatcher (*Myiarchus crinitus*), frequent, summer resident.
38. Phœbe (*Sayornis phæbe*), abundant, summer resident.
39. Wood Pewee (*Myiochanes virens*), common, summer resident.

40. Acadian Flycatcher (*Empidonax virescens*), rare.
41. Least Flycatcher (*Empidonax minimus*), abundant, summer resident.
42. Blue Jay (*Cyanocitta cristata cristata*), occasional, becoming more plentiful, permanent resident.
43. Crow (*Corvus brachyrhynchos brachyrhynchos*), abundant, permanent resident.
44. Starling (*Sturnus vulgaris*), common, increasing rapidly, permanent resident.
45. Bobolink (*Dolichonyx oryzivorus*), rare, in two localities fairly common at times, summer resident.
46. Cowbird (*Molothrus ater ater*), frequent, summer resident.
47. Red-winged Blackbird (*Agelaius phœniceus phœniceus*), common, summer resident.

48. Meadowlark (*Sturnella magna magna*), common, summer resident.
49. Orchard Oriole (*Icterus spurius*), frequent, summer resident.
50. Baltimore Oriole (*Icterus galbula*), common, summer resident.
51. Rusty Blackbird (*Euphagus carolinus*), rare, migrant.
52. Purple Grackle (*Quiscalus quiscula quiscula*), abundant (Purple probably more common than Bronzed), summer resident.
53. Bronzed Grackle (*Quiscalus quiscula æneus*), summer resident.
54. Purple Finch (*Carpodacus purpureus purpureus*), occasional, permanent resident.
55. Redpoll (*Acanthis linaria linaria*), irregular, winter visitant.
56. Goldfinch (*Astragalinus tristis tristis*),

- tis*), abundant, summer resident, occasionally seen in winter.
57. Pine Siskin (*Spinus pinus*), irregular winter visitant.
58. Vesper Sparrow (*Poæcetes gramineus gramineus*), common, summer resident.
59. Grasshopper Sparrow (*Ammodramus savannarum australis*), frequent, summer resident.
60. White-crowned Sparrow (*Zonotrichia leucophrys leucophrys*), rare, winter visitant.
61. White-throated Sparrow (*Zonotrichia albicollis*), common, winter resident.
62. Tree Sparrow (*Spizella monticola monticola*), frequent, winter resident.
63. Chipping Sparrow (*Spizella passerina passerina*), abundant, summer resident.

64. Field Sparrow (*Spizella pusilla pusilla*), common, summer resident.
65. Slate-colored Junco (*Junco hyemalis hyemalis*), abundant, winter resident.
66. Song Sparrow (*Melospiza melodia melodia*), abundant, summer resident, occasional in winter.
67. Lincoln's Sparrow (*Melospiza lincolni lincolni*), rare, migrant, seen once, May 14, 1911.
68. Swamp Sparrow (*Melospiza georgiana*), rare, summer resident.
69. Fox Sparrow (*Passerella iliaca iliaca*), occasional, sometimes common in migration.
70. Towhee (*Pipilo erythrophthalmus erythrophthalmus*), common, summer resident.

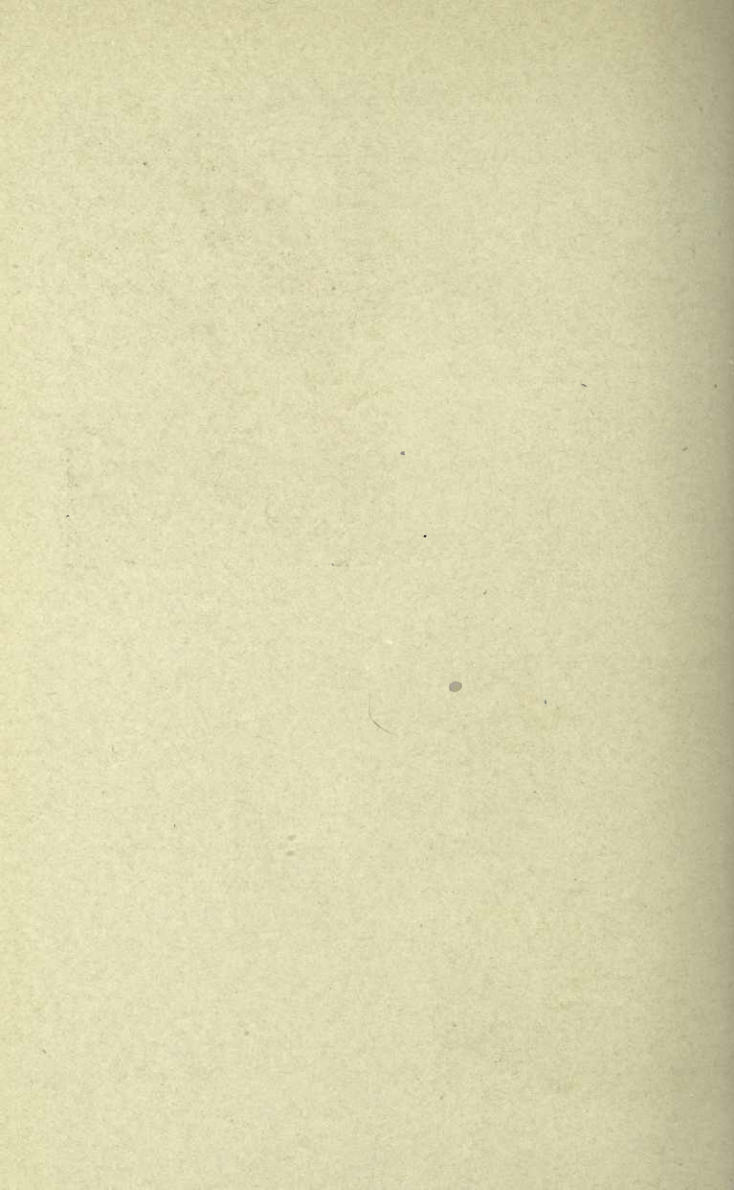
71. Cardinal (*Cardinalis cardinalis cardinalis*), uncommon, permanent resident. Only near Ravine Lake.
72. Rose-breasted Grosbeak (*Zamelodia ludoviciana*), occasional, summer resident.
73. Indigo Bunting (*Passerina cyanea*), frequent, summer resident.
74. Scarlet Tanager (*Piranga erythromelas*), common, summer resident.
75. Purple Martin (*Progne subis subis*), rare, summer resident.
76. Cliff Swallow (*Petrochelidon lunifrons lunifrons*), uncommon, summer resident.
77. Barn Swallow (*Hirundo erythrogastra*), abundant, summer resident.

78. Tree Swallow (*Iridoprocne bicolor*), occasional, migrant.
79. Rough-winged Swallow (*Stelgidopteryx serripennis*), occasional, summer resident.
80. Cedar Waxwing (*Bombycilla cedrorum*), occasional, summer resident, rare in winter.
81. Northern Shrike (*Lanius borealis*), rare, winter visitant.
82. Red-eyed Vireo (*Vireosylva olivacea*), abundant, summer resident.
83. Philadelphia Vireo (*Vireosylva philadelphia*), rare, migrant.
84. Warbling Vireo (*Vireosylva gilva gilva*), occasional, summer resident.
85. Yellow-throated Vireo (*Lanivireo flavifrons*), common, summer resident.
86. Blue-headed Vireo (*Lanivireo solitarius solitarius*), rare, migrant.

Sparrow Hawk



Ruby-throated Hummingbird



87. White-eyed Vireo (*Vireo griseus griseus*), occasional, summer resident.
88. Black and White Warbler (*Mniotilta varia*), common, summer resident.
89. Blue-winged Warbler (*Vermivora pinus*), rare, summer resident.
90. Nashville Warbler (*Vermivora rubricapilla rubricapilla*), rare, migrant.
91. Northern Parula Warbler (*Comptosia hypoleuca americana usneae*), occasional.
92. Cape May Warbler (*Dendroica tigrina*), rare, seen once, spring 1911, migrant.
93. Yellow Warbler (*Dendroica aestiva aestiva*), frequent, summer resident.
94. Black - throated Blue Warbler

- (*Dendroica caerulescens caerulescens*), occasional, migrant.
95. Myrtle Warbler (*Dendroica coronata*), common, migrant.
96. Magnolia Warbler (*Dendroica magnolia*), occasional, migrant.
97. Chestnut-sided Warbler (*Dendroica pennsylvanica*), frequent, summer resident.
98. Bay-breasted Warbler (*Dendroica castanea*), scarce, formerly seen occasionally. I have no record of it for over two years.
99. Black-poll Warbler (*Dendroica striata*), frequent, migrant.
100. Blackburnian Warbler (*Dendroica fusca*), rare, migrant.
101. Black-throated Green Warbler (*Dendroica virens*), frequent, migrant.
102. Pine Warbler (*Dendroica virens*), rare.
103. Yellow Palm Warbler (*Dendroica*

palmarum hypochrysea), occasional.

- 104. Ovenbird (*Seiurus aurocapillus*), common, summer resident.
- 105. Northern Water-Thrush (*Seiurus noveboracensis noveboracensis*), occasional, migrant.
- 106. Louisiana Water-Thrush (*Seiurus motocilla*), frequent, summer resident.
- 107. Maryland Yellow-throat (*Geothlypis trichas trichas*), common, summer resident.
- 108. Yellow-breasted Chat (*Icteria virens virens*), occasional, summer resident.
- 109. Hooded Warbler (*Wilsonia citrina*), rare, migrant.
- 110. Wilson Warbler (*Wilsonia pusilla pusilla*), rare, migrant.
- 111. Canada Warbler (*Wilsonia canadensis*), occasional, migrant.

112. Redstart (*Setophaga ruticilla*), abundant in 1910; frequent in 1911; summer resident.
113. Catbird (*Dumetella carolinensis*), common, summer resident.
114. Brown Thrasher (*Toxostoma rufum*), usually common, summer resident.
115. Carolina Wren (*Thryothorus ludovicianus ludovicianus*), rare, seen once in spring of 1910.
116. House Wren (*Troglodytes aëdon aëdon*), common, summer resident.
117. Winter Wren (*Nannus hiemalis hiemalis*), occasional, winter visitant.
118. Brown Creeper (*Certhia familiaris americana*), occasional, winter visitant.
119. White-breasted Nuthatch (*Sitta*

- carolinensis carolinensis*), common, permanent resident.
120. Red-breasted Nuthatch (*Sitta canadensis*), uncommon, migrant.
121. Chickadee (*Penthestes atricapillus atricapillus*), common, permanent resident.
122. Golden-crowned Kinglet (*Regulus satrapa satrapa*), frequent, winter visitant.
123. Ruby-crowned Kinglet (*Regulus calendula calendula*), frequent, migrant.
124. Wood Thrush (*Hylocichla mustelina*), abundant, summer resident.
125. Veery (*Hylocichla fuscescens fuscescens*), common, summer resident.
126. Gray-cheeked or Bicknell Thrush (*Hylocichla aliciae aliciae* or *Hylocichla aliciae bicknelli*), occa-

sional, five seen in one day in spring of 1910, migrant.

127. Olive-backed Thrush (*Hylocichla ustulata swainsoni*), occasional, migrant.
128. Hermit Thrush (*Hylocichla guttata pallasi*), frequent, migrant.
129. Robin (*Planesticus migratorius migratorius*), abundant, summer resident, rare in winter.
130. Bluebird (*Sialia sialis sialis*), abundant, summer resident, occasional in winter.
131. Common Pheasant (*Phasianus colchicus* + *torquatus*), frequent, about one hundred are liberated annually; several nests recorded.
132. English Sparrow (*Passer domesticus*), abundant, permanent resident.

Tree Swallow



Barn Swallow

CHAPTER XIV

THE HORRORS OF THE TAKING OF AIGRETTES

THE beautiful plumes so frequently seen on a lady's hat are aigrettes, taken from the backs of the American and Snowy Egrets. Where did she get them? From the retail milliner, who buys them from the wholesale supply house, which secures them from the plume-hunter, actually, the *Egret Slaughterer*. The story of how the latter gets the plumes is as follows: After selecting a roost, he shoots the adult birds, which have nests in the vicinity, for he shoots the birds only during the breeding season, as that is the only time at which the plumes are worn. He slaughters

them by the hundred, and leaves their young to die of starvation, after untold agony. Sometimes before the birds are dead, their backs are torn off, and they are left to die and be eaten by insects. In South America, wounded birds are propped up to attract the attention of passing birds, and sometimes the red ants eat the eyes out of the wounded birds. The young call for food until they are too weak to stand, and then die.

All assertions by milliners that the plumes are artificial or have been moulted are false. It is impossible at the present time to imitate them satisfactorily, and after being dropped by the birds, they are unfit for use.

Shall we let the birds be exterminated? Do you realize that a prominent scientist has said: "I will go on record to say that one kind of bird be-

comes extinct every week," and this is caused by man.

Over \$700,000,000 annually is saved to agriculture through the birds.

Egrets gather in colonies during the nesting season, and are therefore easily killed. Originally the plumes are white, but they are dyed all colors.

The Buffalo and Wild Pigeon, which were formerly abundant, are now practically, if not wholly extinct. The Egrets will soon follow them, if immediate care is not taken.

Both Ex-President and Mrs. Roosevelt, and Queen Alexandra, have expressed their disapproval of the use of Aigrettes.

How can the slaughter of Egrets for their plumes be stopped? In two ways: first, by women refusing to buy them, and second, by stationing wardens at the various colonies of Egrets, during the

few months in summer, while they are nesting. The National Association of Audubon Societies, 1974 Broadway, New York City, employs special men to guard the colonies, and the cost of membership in this society is \$5.00 annually. All the money goes to the protection of birds.

Can we, a civilized nation, afford to allow this cruelty to continue? Will not some of the readers of this book become members of the Audubon Society?

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